00059772

THE
ASIATIC SOCIETY OF BOMBAY
Town Hall, Bombay.

Digitized with financial assistance from the
Government of Maharashtra
on 18 July, 2018

OLD-FASHIONED ETHICS

AND

COMMON-SENSE METAPHYSICS

LONDON: PRINTED BY
SPOTTISWOODE AND CO., NEW-STREET SQUARE
AND PARLIAMENT STREET

OLD-FASHIONED ETHICS

AND

COMMON-SENSE METAPHYSICS

WITH SOME OF THEIR APPLICATIONS

WILLIAM THOMAS THORNTON

AUTHOR OF A TREATISE 'ON LABOUR'

London

MACMILLAN AND CO.

1873

All rights reserved

'I entirely agree with you as to the ill tendency of the affected doubts of some philosophers and the fantastical conceits of others. I am even so far gone of late in this way of thinking, that I have quitted several of the sublime notions I had got in their schools for vulgar opinions. And I give it you on my word, that since this revolt from metaphysical notions to the plain dictates of nature and common sense, I find my understanding strangely enlightened, so that I can now easily comprehend a great many things which before were all mystery and riddle.'—BERKELEY'S HYLAS AND PHILONOUS.

00059772

PREFACE.

THE BOOK was all but finished, and only the Preface remained, over which I was hesitating, apprehensive equally of putting into it too much and too little, when one of the most frequent 'companions of my solitude' came to my aid, shewing me, in fragments, a preface already nearly written, and needing only a little piecing to become forthwith presentable. Here it is.

'In these sick days, in a world such as ours, richer than usual in Truths grown obsolete, what can the fool think but that it is all a Den of Lies wherein whoso will not speak and act Lies must stand idle and despair?' Whereby it happens that for the artist who would fain minister medicinally to the relief of folly, 'the publishing of a Work of Art,' designed, like this, to redeem Truth from premature obsolescence, 'becomes almost a necessity.' For, albeit, 'in the heart of the speaker there ought to be some kind of gospel tidings burning until it be uttered, so that otherwise it were better for him that he altogether held his peace,' still, than to have fire burning within, and not to put it forth, not many worse things are readily imaginable.

'Has the word Duty no meaning? Is what we call Duty no divine messenger and guide, but a false, earthly fantasm, made up of Desire and Fear?' In that 'Logic-mill of thine' hast thou 'an earthly mechanism for the Godlike itself, and for grinding out Virtue from the husks of Pleasure? I tell thee, Nay! Otherwise, not on Morality, but on Cookery, let us build our stronghold. There, brandishing our frying-pan as censer, let us offer up sweet incense to the Devil, and live at ease on the fat things *he* has provided for his elect,' seeing that 'with stupidity and sound digestion, man may front much.'

Or, 'is there no God? or, at best, an absentee God, sitting idle ever since the first Sabbath, at the outside of His universe, and *seeing* it go?' Know that for man's well-being, whatever else be needed, 'Faith is one thing needful.' Mark, 'how, with it, Martyrs, otherwise weak, can cheerfully endure the shame and the cross; how, without it, worldlings puke up their sick existence, by suicide, in the midst of luxury.' Of how much else, 'for a pure moral nature, is not the loss of Religious Belief the loss?' 'All wounds, the crush of long-continued Destitution, the stab of false Friendship and of false Love, all wounds in the so genial heart would have healed again had not the life-warmth of Faith been withdrawn.' But this once lost, how recoverable? how, rather, ever acquirable? 'First must the dead Letter of Religion own itself dead, and drop piecemeal into dust, if the living Spirit of Religion, freed

from this, its charnel house, is to arise on us, new born of Heaven, and with new healing under its wings.'

Beside these burning words of Mr. Carlyle any additional words of mine would stand only as superfluous foils, and are, therefore, considerately pretermitted.

CADOGAN PLACE : *December* 1872.

CONTENTS.

CHAPTER		PAGE
I.	ANTI-UTILITARIANISM	1
II.	HISTORY'S SCIENTIFIC PRETENSIONS	84
III.	DAVID HUME AS A METAPHYSICIAN	113
IV.	HUXLEYISM	158
V.	RECENT PHASES OF SCIENTIFIC ATHEISM	199
VI.	LIMITS OF DEMONSTRABLE THEISM	266
	EPILOGUE	298

OLD-FASHIONED ETHICS

AND

COMMON-SENSE METAPHYSICS

CHAPTER I.

ANTI-UTILITARIANISM.

I.

HAVING, by the heading of this essay, announced that it is intended to be partly controversial, I can scarcely begin better than by furnishing the reader with the means of judging whether I myself correctly apprehend the doctrine which I am about to criticise. If, then, I were myself an Utilitarian, and, for the sake either of vindicating my own belief, or of making converts of other people, had undertaken to explain what Utilitarianism is, I should set about the task somewhat in this wise :—

The sole use and sole object of existence is enjoyment or pleasure, which two words will here be treated as synonymous ; happiness, also, though not quite identical in meaning, being occasionally substituted for them. Enjoyment, it must be observed, is of very various kinds, measures, and degrees. It may be sensual, or emotional, or imaginative, or intellectual, or moral. It may be momentary or eternal ; intoxicating delight or sober satisfaction. It may be unmixed and undisturbed, in which case, however short of duration or coarse in quality, it may in strictness be called happiness ; or it may be troubled and alloyed, although of a flavour which would be exquisite if pure, and if there were nothing to interfere with the per-

ception of it. Understood, however, in a sufficiently comprehensive sense, enjoyment or pleasure may be clearly perceived to be the sole object of existence. The whole value of life plainly consists of the enjoyment, present or future, which life affords, or is capable of affording or securing. Now, the excellence of all rules depends on their conduciveness to the object they have in view. The excellence of all rules of life must, therefore, depend on their conduciveness to the sole object which life has in view, viz., enjoyment. But the excellence of rules of life, or of conduct or modes of acting, would seem to be but another name for their morality, and the morality of actions obviously depends on their conformity to moral rules. Whence, if so much be admitted, it necessarily follows that the test of the morality of actions is their conduciveness to enjoyment.

But the enjoyment thus referred to is not that of the agent alone, for if it were, no action whatever could possibly be immoral. Whatever any one does, he does either because to do it gives him or promises him pleasure, or because he believes that the not doing it would subject him to more pain than he will suffer from doing it. Besides, one person's enjoyment may be obtained at the expense of other people's suffering, so that an act in which the actor takes pleasure may destroy or prevent more pleasure altogether than it creates. The enjoyment or happiness, therefore, which Utilitarianism regards, is not individual, but general happiness; not that of one or of a few, but of the many, nor even of the many only. It is often declared to be the greatest happiness of the greatest number, but it may with more accuracy be described as the largest aggregate of happiness attainable by any or by all

concerned.[1] Again, an action which, in some particular instance, causes more pleasure than pain to those affected by it, may yet belong to a class of actions which, in the generality of cases, causes more pain than pleasure, and may thus involve a violation of a moral rule, and, consequently, be itself immoral. Wherefore the enjoyment which Utilitarianism adopts as its moral test is not simply the greatest sum of enjoyment for all concerned, but that greatest sum in the greatest number of cases. In its widest signification it is the greatest happiness of society at large and in the long run. From these premises a decisive criterion of right and wrong may be deduced. Every action belonging to a class calculated to promote the permanent happiness of society is right. Every action belonging to a class opposed to the permanent happiness of society is wrong.

In the foregoing exposition I have, I trust, evinced a sincere desire to give Utilitarianism its full due, and I shall at least be admitted to have shown myself entirely free from most of those more vulgar misconceptions of its nature which have given its professors such just offence. Many of its assailants have not scrupled to stigmatise as worthy only of swine a doctrine which represents life as having no better and nobler object of desire and pursuit than pleasure. To these, however, it has, by the great apostle of Utilitarianism,

[1] The distinction here drawn is not merely verbal. The greatest happiness of the greatest number may mean either the largest total of happiness in which the largest possible number of those concerned can participate, or a still larger total, which, if some of the possible participants were excluded, would be divisible among the remainder. The largest aggregate of happiness attainable by any or by all concerned, means the largest sum total absolutely, without reference to the number of participants. Writers on Utilitarianism seem to have sometimes the first, sometimes the second of these totals in view, but more frequently the second than the first.

been triumphantly replied that it is really they themselves who insult human nature by using language that assumes human beings to be capable of no higher pleasures than those of which swine are capable; and that, moreover, if the assumption were correct, and if the capacities of men and of swine were identical, whatever rule of life were good enough for the latter would likewise be good enough for the former. But I am not an assailant of this description. Inasmuch as there undeniably are very many and very various kinds of pleasure, I of course allow Utilitarianism credit for common sense enough to acknowledge that those kinds are most worthy of pursuit which, from whatever cause, possess most value—that those which are most precious are those most to be prized. But whoever allows thus much will have no alternative but to concede a great deal more. The most precious of pleasures is that which arises from the practice of virtue, as may be proved conclusively in the only way of which the case admits, viz., by reference to the fact that, whoever is equally acquainted with that and with other pleasures, deliberately prefers it to all the rest, will, if necessary, forego all others for its sake, and values no others obtainable only at its expense. By necessary implication it follows that, as being more valuable than any other, the pleasure arising from the practice of virtue must be that which Utilitarianism recommends above all others as an object of pursuit. But the pursuit of this particular pleasure and the practice of virtue are synonymous terms. What, therefore, Utilitarianism above all other things recommends and insists upon is the practice of virtue. Now, the practice of virtue commonly involves subordination of one's own interest to that of other people; indeed, virtue would not be virtue in the utilitarian

sense of the word unless it did involve such subordination. Wherefore the pleasure arising from the practice of virtue, the pleasure which occupies the highest place on the utilitarian scale, and that which Utilitarianism exhorts its disciples chiefly to seek after, is nothing else than the pleasure derived from attending to other people's pleasure instead of to our own.

Nor is this all. In order adequately to appreciate the loftiness of utilitarian teaching, and its utter exemption from the sordidness with which it is ignorantly charged, we must devote a few moments to examination of those distinctive peculiarities of different kinds of pleasure which entitle them to different places in our esteem.

All pleasures may be arranged under five heads, and in regularly ascending series, as follows :—

1. Sensual pleasures :—To wit, those of eating and drinking, and whatever others are altogether of the flesh, fleshly.

2. Emotional, by which are to be understood agreeable moods of the mind, such as, irrespectively of any agreeable idea brought forward simultaneously by association, are produced by music ('for,' as Milton says, 'eloquence the soul, song charms the sense'), by beauty of form or colour, by genial sunshine, by balmy or invigorating air.

3. Imaginative, or pleasures derived from the contemplation of mental pictures.

4. Intellectual, or those consequent on exercise of the reasoning powers.

5. Moral, or those which are alluded to when virtue is spoken of as being its own reward.[1]

[1] I do not form a separate class of pleasures of the affections, because these seem to me not to be elementary, but to be always compounded of two or more of the other five kinds.

That of these several kinds, each of the last four is preferable to any preceding it on the list will, it is to be hoped, be allowed to pass as an unquestioned truth, for to any one perverse enough to deny it, the only answer that can be made is an appeal to observation in proof that all persons who are equally acquainted with the several kinds do exhibit the preferences indicated. Neither, so far as the two kinds first-named alone are concerned, is it possible to go much more deeply into the reasons why emotional pleasures are to be preferred to sensual, than by pointing to the fact that all competent judges of both are observed to like the former best. If all those who are endowed with equal sensitiveness of ear and of palate prefer music to feasting, and would any day give up a dinner at Francatelli's for the sake of hearing a rejuvenescent Persiani as Zerlina, or Patti as Dinorah, the one thing presumable is, that all such persons derive more enjoyment from perfect melody than from perfect cookery, and little else remains to be said on the subject. The same ultimate fact need not, however, limit our inquiry as to the preferableness of imaginative or intellectual to emotional pleasures, and of moral to any of the other three. This admits of, and demands, a more subtle explanation, from which we may learn, not merely that certain preferences are shown, but also why they are shown. The preferences in question are demonstrably not due to the greater poignancy of the pleasures preferred. It is simply not true that the keenest of imaginative pleasures is keener than the keenest of emotional, and still less that the keenest of intellectual is so. The very reverse is the truth. The supremest delight attainable in fancy's most romantic flight is, I suspect, faint in comparison with the sort of ecstasy into which a child of freshly-strung nerves

is sometimes thrown by the mere brilliance or balminess of a summer's day, and with which even we, dulled adults, provided we be in the right humour, and that all things are in a concatenation accordingly, are now and then momentarily affected while listening to the wood-notes wild of a nightingale, or a Jenny Lind, or while gazing on star-lit sky or moon-lit sea, or on the snowy or dolomite peaks of a mountain range fulgent with the violet and purple glories of the setting sun. And yet the choicest snatches of such beatitude with which—at least, after the fine edge of our susceptibilities has been worn away by the world's friction—we creatures of coarse human mould are ever indulged, are but poor in comparison with the rich abundance of the same in which some more delicately-constituted organisms habitually revel. If we would understand of what development emotional delight is capable, we should watch the skylark. As that 'blithe spirit' now at heaven's gate 'poureth its full heart,' and anon can

> Scarce get out his notes for joy,
> But shakes his song together as he nears
> His happy home, the ground,

what poet but must needs confess with Shelley, that in his most rapturous dream, his transport never came nigh the bird's? And yet what poet would change conditions with the lark? Nay, what student or philosopher would? albeit the utmost gratification ever earned by either of these in the prosecution of his special calling—in acquiring knowledge, in solving knotty problems, or in scaling the heights of abstract contemplation—is probably as inferior in keenness of zest to that which the poet knows, as the best prose is inferior in charm to the best poetry. It may even be that both poet and philosopher owe, on the whole, more

unhappiness than happiness—the one to his superior sensibility, the other to his superior enlightenment, and yet neither would exchange his own lesser happiness for the greater happiness of the lark. Why would he not? It is no sufficient answer to say that in the lark's happiness there are few, if any, imaginative or intellectual ingredients; that it is almost utterly unideal, almost purely emotional, exactly the same in kind, and only higher in degree, than the glee of puppies or kittens at play. The question recurs as forcibly as ever, why—seeing that enjoyment is the one thing desirable, the only thing either valuable in itself, or that gives value to other things—why is it that no intelligent man would accept, in lieu of his own, another mode of existence, in which, although debarred from the joys of thought and fancy, he nevertheless has reason to believe that the share of enjoyment falling to his lot would be greater, both in quantity and sapidity, than it is at present? The following seems to me to be the explanation of the mystery.

It might be too much to say that nothing can please a person who is not pleased with himself, but it is at any rate clear that nothing can greatly please him which interferes with his self-satisfaction. Now imaginative and intellectual enjoyment, each of them, involves the exercise of a special and superior faculty, mere consciousness of the possession of which helps to make the possessor satisfied with himself. It exalts what Mr. Mill aptly terms his sense of dignity, a sense possessed in some form or other by every human being, and one so essential to that self-satisfaction without which all pleasure would be tasteless, that nothing which conflicts with it can be an object of serious desire. In virtue of this special faculty, the most

wretched of men holds himself to be superior to the most joyous of larks. To divest himself of it would be to lower himself towards the level of the bird, and to commit such an act of self-degradation would occasion to him an amount of pain which he is not disposed to incur for the sake of any amount of pleasure obtainable at its expense. It is, then, the fear of pain which prevents his wishing to be turned into a lark. He is not ignorant that he would be happier for the metamorphosis, but he dreads the pain that must precede the increase of happiness, more than he desires the increase of happiness that would follow the pain.

The force of these considerations will be equally, or more apparent, on their being applied to analysis of moral pleasures. That these are the most truly precious of all pleasures, is proved by their being habitually more highly prized than any others by all who are qualified to make the comparison. But why are they so prized? Not, as I am constrained, however reluctantly, to admit, on account of their greater keenness as pleasures. It would be at best but well-meaning cant to pretend that the self-approval, the sympathetic participation in other people's augmented welfare, the grateful consciousness of having done that which is pleasing in our Heavenly Father's sight, together with whatever else helps to compose the internal reward of virtue, constitute a sum total of delight nearly as exquisite as that which may be obtained in a variety of other ways. The mere circumstance of there being invariably included in a just or generous action more or less of self-denial, self-restraint, or self-sacrifice, must always sober down the gratification by which virtue is rewarded, and make it appear tame beside the delirium of gladness caused by

many things with which virtue has nothing to do. We will charitably suppose that the occupant of a dukedom, who should secretly light upon conclusive proof that it was not his by right, would at once abandon it to the legal heir, and we need not doubt that he would subsequently be, on the whole, well content to have so acted, but we cannot suppose that he would make the surrender with anything like the elation with which he entered on the estate and title. If there were really no pleasure equal to that with which virtue recompenses its votaries, the performance of a virtuous act would always make a man happier than previously; moreover, the greater the virtue, the greater would be the consequent pleasure. But any one may see that an act of the most exalted virtue, far from increasing, often utterly destroys the agent's happiness. Imagine an affectionate father, some second Brutus or second Fitzstephen of Galway, constrained by overwhelming sense of duty to sentence a beloved son to death, or a bankrupt beggaring himself and his family by honestly making over to his creditors property with which he might have safely absconded. Plainly, such virtuous achievement, far from adding to the happiness of its author, has plunged him in an abyss of misery, his only comfort being that in the lowest deep there is, as we shall presently see, a lower deep still. Far from being happier than he was before acting as he has done, he would be much happier if, being vicious instead of virtuous, he had not felt bound so to act. Unquestionably, what either upright judge or honest bankrupt has incurred—the one by becoming a saticide, the other by making himself a beggar—is pure and simple pain, unmitigated by one particle of positive pleasure. Yet it is at the same time certain that the virtue of each has in

some form or other given full compensation for the pain it has occasioned, for not only was that pain deliberately incurred in lieu of the pleasure which it has supplanted, but restoration of the pleasure would now be refused, if reversal of the virtuous conduct were made a condition of the restoration. In what, then, does the compensation consist? In nothing else than this, in judge or bankrupt having been saved from pain still greater than that which he is actually suffering. Wretched as he is, infinitely more wretched than he was before there was any call upon him to act as he has done, he is less wretched than he would be if, recognising the obligation so to act, he had not so acted. He has escaped the stings of conscience, the sense of having wronged his neighbour and offended his God; he has escaped, in short, self-condemnation—a torment so intolerable to those so constituted as to be susceptible of it, that hell itself has been known to be, in imagination at least, preferred to it. Mr. Mill's splendid outburst that, rather than worship a fiend that could send him to hell for refusing, he would go to hell as he was bid, will doubtless occur to every reader.

This, however, is all. In both the supposed cases, as in every one in which virtue consists of compliance with a painful duty, the pleasure arising from the practice of virtue cannot in strictness be called pleasure at all. At best it is but a partial negation of pain; more properly, indeed, the substitution of one pain for another more acute. Yet this mere negation, this ethereal inanity, is pronounced by Utilitarianism to be preferable to aught that can come into competition with it. Truly it is somewhat hard upon those who attend to such teaching, to be reproached with their grossness of taste and likened to hogs, for no better

reason than their predilection for the lightest of all conceivable diets. Still harder will this seem, when we recollect that Utilitarians are exhorted to be virtuous, less for their own than for other people's sakes. If, indeed, virtue were practised by all mankind, the utilitarian idea of the greatest possible happiness, or, at least, of the greatest possible exemption from unhappiness, would be universally realised. Still, it is in order that they may afford pleasure to the community at large, rather than that they may obtain it for themselves; it is that they may save, not so much themselves, as the community, from pain, that individual Utilitarians are charged to be virtuous. Among those pleasures, whether positive or negative, which it is allowable to them to seek for themselves, the first place is assigned to the pleasure arising from the sense of giving pleasure to others. Thus, not only is it the purest of pleasures that Utilitarianism chiefly recommends for pursuit: even that pleasure is to be pursued only from the purest and most disinterested motives.

All this I frankly acknowledge; and I own, too, that, far from deserving to be stigmatised as irreligious, Utilitarianism is literally nothing else than an amplification of one moiety of Christianity; that it not adopts merely, but expands, 'the golden rule of Jesus of Nazareth,' exhorting us to love our neighbour, not simply as well, but better than ourselves; to do for others, not simply what we would have them do for us, but much more than we could have the face to ask them to do; not merely not to pursue our interests at the expense of theirs, but to regard as our own chief interest the promotion of theirs. That on account of these exhortations Utilitarianism is godless can be supposed by those only who suppose that love to one's neigh-

bour is contrary to the will of God. By those who believe that works are the best signs of faith, and that love to God is best evinced by doing good to man, Utilitarianism might rather seem to be but another name for practical religion.

So I say in all sincerity, though not without some misgiving, as while so speaking I involuntarily bethink myself of Balaam, son of Beor, who having been called forth to curse, caught himself blessing altogether. Mine eyes, too, have been opened to the good of that which I was purposed to condemn, and behold I have as yet done nothing but eulogise. No warmest partisan of Utilitarianism, not Mr. Mill himself, ever spoke more highly of it than I have just been doing. What censures, then, can I have in reserve to countervail such praises? What grounds of quarrel can I have with a system of ethics which I have described as ever seeking the noblest ends from the purest motives; whose precepts I own to be as elevating as its aims are exalted? On reflection, I am reassured by recollecting several, which I proceed to bring forward one at a time, beginning with a sin enormous enough to cover any multitude of merits.

My first charge against Utilitarianism is that it is not true. I do not say that there is no truth in it. That I have found much to admire in its premises has been frankly avowed; and in one, at least, of the leading deductions from those premises I partially concur. I admit that acts utterly without utility must likewise be utterly without worth; that conduct which subserves the enjoyment neither of oneself nor of any one else, cannot, except in a very restricted sense, be termed right; that conduct which interferes with the enjoyment both of oneself and of all others,

which injuring oneself injures others also, and benefits no one, cannot be otherwise than wrong; that purely objectless asceticism which has not even self-discipline in view, is not virtue, but folly; that misdirected charity which, engendering improvidence, creates more distress than it relieves, is not virtue, but criminal weakness. But though admitting that there can be no virtue without utility, I do not admit either that virtue must be absent unless utility preponderate, or that if utility preponderate virtue must be present. I deny that any amount of utility can of itself constitute virtue. I deny that whatever adds to the general happiness must be right. Equally do I deny that whatever diminishes the general happiness or prevents its increasing must be wrong. An action, be it observed, may be right in three different senses. It may be right as being meritorious, and deserving of commendation. It may be right as being that which one is bound to do, for the doing of which, therefore, one deserves no praise, and for neglecting to do which one would justly incur blame. It may be right simply as not being wrong—as being allowable—something which one has a right to do, though to refrain from doing it might perhaps be praiseworthy. There will be little difficulty in adducing examples of conduct which, though calculated to diminish the sum total of happiness, would be right in the first of these senses. Nothing can be easier than to multiply examples of such conduct that would be right in the third sense. I proceed to cite cases which will answer both these purposes, and likewise the converse one of showing that conduct calculated to increase the general happiness may nevertheless be wrong.

When the Grecian chiefs, assembled at Aulis, were

waiting for a fair wind to convey them to Ilium, they were, we are told, warned by what was to them as a voice from heaven, that their enterprise would make no progress unless Agamemnon's daughter were sacrificed to Diana. In order to place the details of the story in a light as little favourable as possible to my argument, we will deviate somewhat from the accepted version, and will suppose that the arrested enterprise was one of even greater pith and moment than tradition ascribes to it. We will suppose that upon its successful prosecution depended the national existence of Greece; that its failure would have involved the extermination of one-half of the people, and the slavery of the other half. We will suppose, too, that of all this Iphigenia was as firmly persuaded as every one else. In these circumstances, had her countrymen a right to insist on her immolation? If so, on what was that right founded? Is it sufficient to say in reply that her death was essential to the national happiness, to the extent even of being indispensable to prevent that happiness from being converted into national woe? Manifestly, according to the hypothesis, it was expedient for all concerned, with the single exception of herself, that she should die; but were the others thereby entitled to take her life? Did the fact of its being for their advantage to do this warrant their doing it? Simply because it was their interest, was it also their right? Right, we must recollect, invariably implies corresponding duty. Right, it is clear, can never be rightfully resisted. If it be the right of certain persons to do a certain thing, it must be the duty of all other persons to let that thing be done. Where there is no such duty, there can be no such right. Wherefore, if the 'stern, black-bearded

kings, with wolfish eyes,' who sate 'waiting to see her die,' had a right to kill Iphigenia, it must have been Iphigenia's duty to let herself be killed. Was this then her duty? 'Duty,' as I have elsewhere observed,[1] 'signifies something due, a debt, indebtedness, and a debt cannot have been incurred for nothing, or without some antecedent step on the part either of debtor or creditor.' But it is not pretended that in any way whatever, by any antecedent act of hers or theirs, Iphigenia had incurred or had been subjected to a debt to her countrymen which could be paid off only with her life. It could not, then, be incumbent on her to let her life be taken in payment. If it had been in her power to burst her bonds, and break through the wolves in human shape that girdled her in, she would have been guilty of no wrong by escaping. But if not, then, however meritorious it might have been on her part to consent to die for her countrymen, it was not her duty so to die, nor, consequently, had they a right to put her to death. She would have been at least negatively right in refusing to die, while they were guilty of a very positive and a very grievous wrong in killing her, notwithstanding that both she and they were perfectly agreed that for her to be killed would be for the incalculably greater happiness of a greater number, exceeding the lesser number in the proportion of several hundreds of thousands to one.

It is true that throughout this affair every one concerned was labouring under a gross delusion—that there was no real use in putting Iphigenia to death, and that nothing but superstition made anybody suppose there was. I do not think the case is one less to our purpose on that account, for Utilitarians, like other fallible mortals, are

[1] 'On Labour,' p. 135.

liable to deceive themselves. They never can be quite secure of the genuineness of the utility on which they rely, and in default of positive knowledge they will always be reduced to act, as the Grecian chiefs did, according to the best of their convictions. Nevertheless, for the satisfaction of those who distrust romance and insist upon reality, we will leave fable for fact, and take as our next illustration an incident that may any day occur.

Imagine three shipwrecked mariners to have leapt from their sinking vessel into a cockboat scarce big enough to hold them, and the two slimmer of the three to have presently discovered that there was little or no chance of either of them reaching land unless their over-weighted craft were lightened of their comparatively corpulent companion. Next, imagine yourself in the fat sailor's place, and then consider whether you would feel it incumbent on you to submit quietly to be drowned in order that the residuum of happiness might be greater than if either you all three went to the bottom, or than if you alone were saved. Would you not, far from recognising any such moral obligation, hold yourself morally justified in throwing the other two overboard, if you were strong enough, and if need were, to prevent their similarly ousting you? But if it were not your duty to allow yourself to be cast into the sea, the others could have no right to cast you out; so that, if they did cast you out, they would clearly be doing not right but wrong. And yet, as clearly, their wrong-doing would have conduced to the greater happiness of the greater number, inasmuch as, while only one life could otherwise have been saved, it would save two, and inasmuch as, *cæteris paribus*, two persons would necessarily derive twice as much enjoyment

from continued existence as one would. Moreover, their wrong-doing would be of a kind calculated always to produce similarly useful results. It cannot, I suppose, be denied that a rule to the effect that whenever forfeiture of one life would save two, one life should be sacrificed, would—not exceptionally only, but at large and in the long run—conduce to the saving of life, and therefore to the conservation of happiness connected with life.

The foregoing cases are no doubt both of them extreme, involving exaction of the largest possible private sacrifice for the general good; but in all cases of the kind, whether the exaction be small or great, the same governing principle equally applies. If you, a foot-sore, homeward-bound pedestrian, on a sweltering July day, were to see your next-door neighbour driving in the same direction in solitary state, would you have a right to stop his carriage and force yourself in? Nay, even though you had just before fallen down and broken your leg, would the compassionating by-standers be justified in forcing him to take you in? Or, again, if you were outside a coach during a pelting shower, and saw a fellow-passenger with a spare umbrella between his legs, while an unprotected female close beside was being drenched with the rain, would you have a right to wrest the second umbrella from him, and hold it over her? That, very likely, is what you would do in the circumstances, and few would be disposed greatly to blame the indignant ebullition. Still, unless you are a disciple of Proudhon, you will scarcely pretend that you can have a right to take possession of another's carriage or umbrella against the owner's will. You can scarcely suppose that it is not for him but for you to decide what use shall be

made of articles belonging not to you but to him. Yet there can be no doubt that the happiness of society would be vastly promoted if everyone felt himself under an irresistible obligation to assist his neighbour whenever he could do so with little or no inconvenience to himself, or, consequently, if external force were always at hand to constrain anyone so to assist who was unwilling to do so of his own accord.

So much in proof that among things of the highest and most extensive utility there are several which it would be decidedly the reverse of right to do, and several others which it would be perfectly right to leave undone. I proceed to show that there are many other things not simply not of preponderating utility, but calculated, on the contrary, to do more harm than good, to destroy more happiness than they are capable of creating, which, nevertheless, it would be not simply allowable to do, but the doing of which would be highly meritorious, acts possibly of the most exalted virtue.

Let no one distrust the doctrine of development by reason of its supposed extravagance of pretension who has not duly considered to what a sublime of moral beauty the united hideousness and absurdity of Calvinism may give birth. In that Puritan society of New England of which Mrs. Beecher Stowe has given so singularly interesting an account in her 'Minister's Wooing,' and among whose members it was an universal article of belief that the bulk of mankind are created for the express purpose of being consigned to everlasting flames, there are said to have been not a few enthusiasts in whom a self-concentrating creed begat the very quintessence of self-devotion. 'As a gallant soldier renounces life and

personal aims in the cause of his king and country, and holds himself ready to be drafted for a forlorn hope, to be shot down, or help to make a bridge of his mangled body, over which the more fortunate shall pass to victory and glory,' so among the early descendants of the Pilgrim Fathers many an one 'regarded himself as devoted to the King Eternal, ready in his hands to be used to illustrate and build up an eternal commonwealth, either by being sacrificed as a lost spirit, or glorified as a redeemed one; ready to throw, not merely his mortal life, but his immortality even, into the forlorn hope, to bridge, with a never-dying soul, the chasm over which white-robed victors should pass to a commonwealth of glory and splendour, whose vastness should dwarf the misery of all the lost to an infinitesimal.' And while by many the idea of suffering everlasting pains for the glory of God, and the good of being in general, was thus contemplated with equanimity, there were some few for whom the idea of so suffering for the good of others dearer than themselves would have been greeted with positive exultation. 'And don't I care for your soul, James?' exclaims Mary Scudder to her lover. 'If I could take my hopes of heaven out of my own heart and give them to you, I would. Dr. H. preached last Sunday on the text, "I could wish myself accursed from Christ for my brethren, my kinsmen," and he went on to show how we must be willing to give up even our own salvation, if necessary, for the good of others. People said it was a hard doctrine, but I could feel my way through it. Yes, I would give my soul for yours. I wish I could.' Now we must on no account permit admiration of Miss Scudder's transcendent generosity in desiring to make this exchange blind us to

the fatal effect on social happiness which, if such exchange were possible, the prevalence of a disposition to make it could not fail to have. If Calvinism were true instead of blasphemous, if God were really the Moloch it represents Him, and if, moreover, Moloch were indifferent as to which of his offspring were cast into the fire, caring only that the prescribed number of victims should be forthcoming in full tale, nothing can be conceived more likely to prove an encouragement to evil-doers, and a terror to them that did well, than observation that well-doing not infrequently led to eternal misery, and evil-doing to eternal bliss. Again, if in China, where criminals under sentence of death are permitted, if they can, by purchase or otherwise, to procure substitutes to die in their stead, a son were to propose to die for a parent base enough to take advantage of the offer, could any arrangement be more plainly repugnant to the common-weal than that by which society would thus lose one of its noblest, instead of getting rid of one of its vilest members? Or, when in England, a thrifty son, by consenting to cut the entail of an estate to which he is heir-apparent, enables a prodigal father to consume in riotous living substance which would otherwise have eventually become his, is he not clearly taking the worse course for the public by permitting the property to be wasted, instead of causing it to be husbanded?

Beyond all question, American Puritan, Chinese or English devotee to filial affection, would thus, each in her or his degree, have, in the circumstances supposed, acted in a manner opposed to the general interest, and would therefore be condemned by Utilitarianism as having acted immorally. Nor could this verdict be gainsaid if utility

and morality were, as Utilitarianism assumes them to be, one and the same thing. Clearly, that the just should suffer for the unjust, the innocent for the guilty, is diametrically opposed to the welfare of society; wherefore, according to utilitarian principles, by consenting so to suffer, the just becomes unjust, the innocent renders himself guilty. But can there be a better proof that utilitarian principles are unsound than that this should be a legitimate deduction from them? Can there be better proof that utility and morality are not identical, but two absolutely distinct things? Plainly, there can be no meritorious or commendable immorality; neither can there be any virtue which is not meritorious and commendable. Is there, then, no merit, nothing commendable, in accepting ruin, or in volunteering to die temporarily, or to perish everlastingly, in order to save a fellow-creature from ruin, or death, or perdition? Does not such conduct, considered independently and without reference either to its utility or its hurtfulness, command our instantaneous and enthusiastic admiration? But how, being so admirable, can it be immoral? how other than virtuous? What else is it, indeed, but the very perfection of that purest virtue which, content to be its own reward, deliberately cuts itself off from all other recompense? Without changing the immemorial meaning of the most familiar words, there is no avoiding the obvious answers to these questions. If virtue and morality, right and wrong, are to continue to mean anything like that which, except by Utilitarians, has always been considered to be their only meaning, it is not simply not wrong, it is not simply right, it is among the highest achievements of virtue and morality to sacrifice your own in order to secure another's happiness, and

the disinterestedness, and therefore the virtue, is surely the greater, rather than less, if you sacrifice more happiness of your own than you secure to another. So much follows necessarily from what has been said, and something more besides. It follows further that Utilitarianism is not less in error in declaring that actions calculated to diminish the total sum of happiness must necessarily be wrong, cannot possibly be allowable, still less meritorious, than it had previously been shown to be in declaring that actions calculated to augment the sum total of happiness must necessarily be meritorious.

There is but one way in which Utilitarianism can even temporarily rebut the charge of fallacy, of which otherwise it must here stand convicted, and that is by renouncing all claim to be a new system of ethics, and not pretending to be more than a new system of nomenclature. And even so, it could not help contradicting, and thereby refuting itself. That nothing is right but what is of preponderating utility; that whatever is of preponderating utility is right; these are propositions perfectly intelligible, indeed, but which will be found to be tenable only on condition that the very same things may be both right and wrong. The confusion, thrice confounded, inseparable from the substitution of such novel definitions for those which had previously been universally in vogue, is but the smaller of two evils which must thence arise. It would be bad enough that the word 'right' could not be used without raising doubt whether what people had previously understood by the 'just' or the 'generous,' or only the 'expedient' were meant; but a still worse consequence would be that, even if no doubt of the sort were entertained, and if all men were agreed to take the word in none but its utilitarian

sense, the landmarks of right and wrong would thereby be well nigh obliterated. Due credit has already been given to Utilitarianism for its exemplary zeal in inculcating the practice of virtue, but its merit in that respect is more than neutralised by its equally zealous inculcation of principles, according to which it is impossible to decide beforehand whether any particular practice will be virtuous or not.

This is my second charge against Utilitarianism. I maintain it to be a doctrine in most of its essentials erroneous; but I maintain, further, that, even if it were correct, instead of furnishing us with an infallible criterion of right and wrong, it would deprive us of the means of clearly distinguishing between right and wrong at all times at which the power of so distinguishing is of practical value. Bluntly enough, I have pronounced it to be false. With equal bluntness, I now add that, even if it were true, it would, all the same, be practically mischievous, and directly opposed to the very utility from which it takes its name. The argument in support of this charge shall now be stated.

According to utilitarian ethics, the morality of actions depends wholly and solely on their consequences. On this point the language of authority is distinct, emphatic, unanimous, and self-contradictory. 'Utilitarian moralists,' says the chief amongst them, 'have gone beyond all others in affirming that the motive has nothing to do with the morality of an action. . . . . He who saves a fellow-creature from drowning does what is morally right, whether his motive be duty or the hope of being paid for his trouble.' Upon which I would observe, in passing, that to save a fellow-creature from drowning can be deemed to be necessarily right by none but uncompro-

mising opponents of capital punishment. Most others will be disposed to doubt its having been a sufficient reason for commuting the sentence of death passed upon the murderer of Dhuleep Sing's gamekeeper, that, owing to physical malformation, hanging might perhaps have given him more than ordinary pain in the neck, or perhaps have prolonged the pleasure which, according to the select few qualified to speak from experience, is attendant on that mode of strangulation. Neither, without sacrificing his judgment to his feelings, could one of these doubters, if Rutherford had been sentenced to be drowned instead of hanged, have stretched out a hand to save the miscreant from the watery grave he so richly deserved. That there are no actions which by reason of their beneficial consequences are always and invariably moral, might be too much to affirm; but I have no hesitation in saying that there are thousands, the morality or immorality of which —their results remaining the same—depends absolutely on their motives. Thus, if two doctors—of whom, for distinction's sake, we will call one Smethurst and the other Smith—in attendance on patients afflicted with precisely the same disease, were by the administration of overdoses of strychnine each to kill his man, the only difference between them being that whereas one intended and expected to kill, the other hoped to cure—would the act of killing be equally immoral in both cases? Would it not in the one case be murder, in the other mere error of judgment; and would both be equally crimes, or would the latter be in any degree criminal? And if it had been Smethurst instead of Smith who committed the error of judgment—if the overdoses by which he had meant to kill had happened to cure—would his error of judgment

have thereby been rendered moral, notwithstanding that his motive was murder?

The same great teacher, who so strenuously insists that the motive has nothing to do with the morality of an action, does indeed go on to say that it has 'much to do with the worth of the agent.' Here, however, I confess myself unable to follow him. That an act may possess morality independent of the agent, may be intelligible on the assumption that morality means simply utility, and nothing more; but how, even then, worth can be evinced by the performance of an immoral action, is beyond my comprehension, except upon the further assumption that there may be worth in immorality.

Waiving, however, these and all other objections, let us for the moment, and for the sake of argument, assume that morality and utility are really one and the same thing, that the right or wrong of an act depends entirely on its results, and then let us observe how utterly without rudder or compass to assist him in steering correctly will be the best-intentioned navigator of the ocean of life.

We can seldom, if ever, be quite sure what will be the result of our conduct. Meaning to cure, we may only too probably kill; meaning to kill, we may not impossibly cure. Until a thing is done, we cannot determine as to its utility; nor, consequently, in an utilitarian sense, as to the morality of doing it. We must trust implicitly to our skill in calculating events, and if that skill happen to fail us, our conduct may become culpable. With the most earnest desire to act righteously, we can only guess beforehand whether what we propose doing will turn out to be righteous, and can never be sure, therefore, that we are not going to do something wicked.

Here I shall, of course, and very properly, be reminded that what Utilitarianism requires to be taken into account, are not merely the probable consequences of some proposed act, but the usual consequences of all acts of the same description; so that its disciples, instead of being left to their conjectures about the future, may be said to have all past experience to refer to. And undeniably Utilitarianism does require this; thereby, however, contradicting itself as, I just now hinted, it would presently be found doing. It does indeed declare those actions only to be moral which in the long run are conducive to, or at least not opposed to, the general happiness; but it also says that the morality of each particular action depends on its own particular consequences. So that the docile disciple who should do something which, though useful in the long run, happened to be otherwise in his particular case—who, for instance, should save the life of a fellow-creature of whom it would have been well for the world to be rid, would, to his disgust and bewilderment, find that while, with no desire but that of acting rightly, he had been obeying one utilitarian law, he had nevertheless been infringing another law of the same code, and thereby acting wrongly.

Overlooking, however, this incongruity of two equally authoritative rules, let us proceed to consider what dangerous latitude of interpretation is allowed to the followers of either of them. Those who believe that the merit or demerit of each separate action depends on that action's separate consequences, need seldom be at a loss for a pretext for committing the most heinous of crimes. A husband who, hating his wife, had his hate returned, and loving another woman, had his love returned, might plausibly reason thus within himself: The prescribed

objects of life are the multiplication of happiness and the diminution of misery; here are three of us, all doomed to be miserable as long as we all three live; but the wretchedness of two of us might be at once converted into happiness, if the third were put out of the way. By some such logical process, Queen Mary and Bothwell may have satisfied themselves of the propriety of blowing up Darnley: Mr. and Mrs. Manning, as they sate at meat with their destined victim over his ready-made grave, may have argued themselves into self-approval of the crowning rite with which their hospitalities were to terminate: any scampish apprentice with designs upon his master's till, any burglar plotting an entry into a goldsmith's shop, may become convinced of his rectitude of purpose, and even take credit for public-spirited zeal, in seeking to appropriate to his own use part of another's wealth, which he may fairly suppose would be productive of more enjoyment if divided between two or more than if left in the hands of one, and that one already perhaps the possessor of more than he knows what to do with.

Precisely the same sophistry will not indeed suffice for those disciples who, adopting the alternative law of the utilitarian code, feel bound to attend to the consequences not of individual actions, but of classes of actions. The cleverest self-deceiver can scarcely bring himself to believe that, because it might suit his personal convenience to kill or steal, killing and stealing would not be prejudicial to society if generally practised. Still, it is only necessary to have, or to fancy one has, public instead of private objects in view, in order to be able to look with approbation, from an utilitarian point of view, on any amount of homicide or robbery. It was the very same Robespierre that, while as

yet diocesan judge at Arras, felt constrained to abdicate because, 'behold, one day comes a culprit whose crime merits hanging, and strict-minded, strait-laced Max's conscience will not permit the dooming of any son of Adam to die,' who, shortly after, when sufficiently imbued with the utilitarian spirit, was fully prepared to wade through floods of slaughter towards the enthronisation of his principles—one of those principles evidently being that, if the decimation of mankind would conduce to the greater happiness of the residue, adding more to the happiness of the nine-tenths whom it spared than it took from the tenth whom it destroyed, the said decimation would be a duty incumbent on any one possessed of power to perpetrate it.

Nor are principles like these appealed to only by those who have recourse to them for the vindication of their own procedure. At those *petits-soupers*—bachelors' dinners is their modern English name, *noctes cœnæque deûm* their ancient classical—for which some of our London clubs are deservedly celebrated, and with which the Garrick in especial is, in my mind, gratefully associated—at those choice gatherings of congenial spirits, conversation, changing from gay to grave, turns not unfrequently, among other lofty topics, on that which we are here discussing. Then, even at such divine symposium, one at least of the guests is pretty sure to take the part of devil's advocate, and to exercise his forensic skill in showing how easily interchangeable are the names of virtue and iniquity, crime and well-doing. September massacres then find, not their apologist, but their eulogist. *Noyades* of Carrier, *fusilades* of Collot d'Herbois, are cited as examples very suitable for imitation in adequate emergencies. Prussia's seizure, on

behalf of Germany, of Schleswig and Holstein, on pretence of their being not Danish, but German, and her subsequent retention of them for herself on the plea of their having always been not German, but Danish, are applauded as acts perfectly consistent with each other and with the eternal fitness of things. And all this is urged in the best possible faith. Of the recited enormities, were not some, steps to the regeneration of France—others, to the unifaction of Germany? And what are myriads of lives in comparison with a regenerate—what violation of the most solemn engagements in comparison with a united, people? Did not the millions of Frenchmen who survived the Reign of Terror gain more than was lost by the thousands who were guillotined at Paris, or drowned at Nantes, or shot down at Lyons? Is not Germany likely to turn Kiel to far better account than Denmark ever did or could have done? and will not German ascendency be abundant compensation for Danish decadence? How culpably misplaced, then, were conscientious scruples that would have impeded the march of events in such directions! Ends need but to be great enough to justify any means. Let but the good promise to exceed the evil, and there is no evil which ought not to be done in order that good may come of it. Thus slightly qualified, the Satanic adage, 'Evil, be thou my good,' is, without more ado, accepted as the utilitarian watchword.

And what though it be only the most thorough-paced Utilitarians who go these extreme lengths? These lengths, extreme as they are, are legitimate deductions from tenets held in common by the most moderate and cautious as well as by the most reckless of the sect. Crime in the abstract is condemned not less vehemently by the latter

than by the former; but by both equally it is condemned on account, not of its inherent vileness, but solely of its observed results. If the results were different, the agency to which they are due would be fitted with a different epithet. If a world could be conceived to be so organised, or, if this world of ours could be conceived to be so changed as that the practice of killing, stealing, or telling lies would be conducive to the general good, the practice in question would obtain a new name in the Utilitarian vocabulary. Crime would become beneficence; and to kill, to steal, or to tell lies would be not wrong, but right. These are propositions which, without abjuring the prime articles of his creed, the most timid Utilitarian has no alternative but to endorse; but how, then, can he shut his eyes to their obvious application? How presume to rebuke those earnest philanthropists, who, to judge from their habitual language, are firmly of opinion that annihilation of one half of mankind would be a small price to pay for conversion of the other moiety into citizens of a world-wide Red Republic; or those admirers of Prince Bismarck, who, holding national aggrandisement to be the national *summum bonum*, deem the most solemn treaties that might impede it to be obstacles which it is obligatory on a patriot to set aside? Will not the effects of any given cause vary with the changes in the circumstances in which the cause acts? May it not easily happen that the direct effect of some private crime shall be to augment, instead of to diminish the total happiness of all the persons affected by it? And is it not, then, conceivable that a public crime, provided it be of sufficient magnitude, may more than counterpoise, by the good it is calculated to do, all the harm that all crimes of the same description either have done or are

likely to do hereafter? It is idle to reply that such a comparison between public good and evil must needs be mistaken: that the harm, for instance, which violation of treaties does to mankind by sapping the foundations of international confidence, rendering impossible international co-operation, and bringing the very name of international morality into contempt, is infinitely beyond any good it can do in the shape of national aggrandisement. Whether this be so or not is matter of opinion, on which every one may fairly insist on forming his own, and if that opinion be in the negative, a utilitarian agent, in Prince Bismarck's circumstances, would be bound in duty to imitate Prince Bismarck's high-handed policy. In all circumstances of international import, in all cases bearing upon the general interests of society, a Utilitarian, after deciding according to his lights which of the various courses open to him would best promote the general welfare, either immediately by its direct effects, or subsequently and indirectly by the example it would set, would be bound in duty to adopt that course. That course, however wrong it might have appeared in all previous cases, would now become right, as being apparently the one most conducive to the future welfare of mankind. Utilitarianism's standard of morality thus turns out to be, not any fixed and definite notion of expediency, but one liable to change with every change in individual judgment. Its boasted criterion of the right or wrong of an action is the best conjecture which the agent, with or without extrinsic advice, is able to form of the future consequences of the action. Utilitarian law, in short, resolves itself into this—that every man shall be a law unto himself. Of course no Utilitarians will acknowledge this to be their law, not even those who shape their

conduct in exact conformity to it. Nevertheless, that such is the law follows necessarily from their own premises. For does not Utilitarianism sometimes—a little heedlessly, perhaps, but not the less positively—declare that the morality of an action depends not at all upon its motives, but exclusively upon its consequences? Does it not, when most guarded in its language, affirm the morality of actions to depend upon their tendencies, that is to say, on their consequences at large, and in the long run? But there can never be perfect certainty as to consequences. With regard to the future, plausible conjecture is the utmost possible; and by differing judgments different conjectures will needs be made. So that the value of the rule of conduct furnished by Utilitarianism to any individual depends upon the latter's ability, supplemented by that of any counsellors whom he may consult, to forecast events. He cannot proceed correctly, except in so far as he or they have the gift of prophecy. However dull his vision may be, he must content himself with his own blind guidance, unless he prefer as guide some one who, for aught he can tell, may be as blind as himself. And it is always for himself to judge whether he will follow advice: so that in effect every Utilitarian is his own moral law-giver; and, certainly, a worse assignment of legislative functions cannot be imagined.

But the mischievousness of Utilitarianism does not stop here. We have seen how one of its principles destroys the landmarks between right and wrong, between virtue and vice, causing each to take continually the place of its opposite. We have now to see how another of its principles obliterates all distinctions between different kinds of virtue, confounding them in one indiscriminate mass, and imparting to them a sort of general oneness not more lucid than that

which, according to Mr. Curdle, is the essence of the dramatic unities.

The object which it insists upon as conduct's end and aim is the general good—the greatest possible aggregate of good or happiness for all. As the Scriptures enjoin us, whether we eat or drink, or whatsoever we do, to do all to the glory of God, so Utilitarianism exhorts us to do all for the welfare of mankind. Now, far be it from me to caricature this soul-inspiring rule by forcing it, under a strained construction, to an unnatural extreme. Fairly examined, it will be seen to make no extravagant demands on our self-denial. As Christianity, even while bidding us to seek first the kingdom of God and his righteousness, promises that all other things shall be added unto us, so Utilitarianism, even while insisting on our seeking first to please others, permits, nay, directs, us to take as much pleasure for ourselves as we can lay hold of without depriving others, since the aggregate of happiness which it is incumbent upon us to augment to the best of our ability would otherwise be less. Nay, for the same reason, it disapproves of our foregoing any pleasure of our own, the full equivalent of which is not transferred to others. The happiness which it requires us to attend to is that of a society of which each of us is a component member, and no member of which can deny himself any pleasure within his reach, and beyond the reach of others, without diminishing the total of happiness which the whole society might enjoy. 'As between his own happiness and that of others,' says Mr. Mill, 'Utilitarianism requires an agent to be as strictly impartial as a disinterested and benevolent spectator.' Thus qualified, the prescribed subordination of one's own to the general good is no such extravagantly self-denying

ordinance. If for anything, it might rather be reproached for its cold, calculating equity. With reference quite as much to individual as to communal happiness it is an excellent rule of conduct, against which not a word could be said, provided only it were left to be adopted voluntarily, and were not authoritatively imposed.

Unfortunately, however, Utilitarianism allows no option in the matter. Unless we do our very utmost to promote the general weal, at whatever sacrifice to ourselves, it charges us with sin of omission. In the words of one of the ablest among able Editors, 'justice is the social idea in its highest, widest, and most binding expression. . . . . It signifies the moral principle which obliges each so to shape his conduct and relations, his claims and his achievements, that they harmonise with the highest good of all.' [1] To which doctrine of Mr. Morley's, if other Utilitarians do not subscribe, it can only be because they are less resolutely logical. Mr. Mill, indeed, though dissenting in appearance on this point from Mr. Morley, agrees with him in substance. Even when on one occasion, distinguishing between duty and virtue, he says that there are innumerable acts and forbearances of human beings which, though either causes or hindrances of good to their fellow-creatures, lie beyond the domain of duty, and within that of virtue or merit, he goes on to assign as the sole reason for placing them in the domain of the latter that, in respect to them, it is, on the whole, for the general interest that people should be left free, thereby plainly intimating that society would be equitably entitled to insist on them if it thought proper. But conduct that can be equitably insisted on is clearly, in the strictest sense, duty; and it would be pre-

[1] 'Fortnightly Review,' June, 1868.

posterous to claim merit for doing that which it would be a breach of duty to leave undone. Duties do not cease to be duties because he on whom they are incumbent is not compelled under penalty to perform them, any more than debts cease to be debts because creditors do not choose to ask for payment. All consistent utilitarian teaching points inflexibly towards Mr. Morley's conclusion, according to which justice and social virtue are absolutely identical, and according to which, also, whoever does not shape his 'conduct, &c., in harmony with the highest good of all,' does less than is due from him, while it is impossible for him to do more. For whatever he propose to do must either be or not be in the prescribed harmony. If it be, he is bound to do it. If not, he is bound not to do it. The very utmost he can do is no more than is incumbent upon him. Less than his very utmost is less than is incumbent. No action of his, therefore, can possess any merit; for mere fulfilment of obligations is reckoned not of grace, but of debt. Having done everything, he is still but an unprofitable servant; he has but done that which was his duty to do. Where, then, is the boast of virtue? It is excluded. By what law? By that of Utilitarianism, set forth in its full amplitude. Honesty and generosity, faith, truth, charity, patient endurance, and chivalrous self-devotion, all are mingled together under the name of justice, and justice itself only remains just as long as it remains identical with the largest expediency.

At this rate we cannot possibly have any virtue to plume ourselves upon. The best we can do being no more than our duty, the only reward we can claim is exemption from the punishment we should have deserved if we had not done it. Whether it be that we have abstained from

killing or robbing our fellow-citizens for our own advantage, or have impoverished or half-killed ourselves in the service of the State, our meed is the same. *Loris non ureris. Non pasces in cruce corvos,* is what we are told. We may congratulate ourselves on having escaped the cat-o'-nine-tails and the gallows. Well, we have, most of us, so much self-sufficiency, that to deprive us of all ground for it might be a fault on the right side. But now comes a second and more awkward reflection. If you will not of your own accord do your duty, those to whom performance of the duty is owing have a right to use means to make you—foul means if fair means will not avail. If, then, you hesitate to do your utmost for the interests of society, society is warranted in taking measures to accelerate your movement. If you are not, or what is practically the same thing, if a numerical majority of your fellow-citizens think you are not, making the most beneficial use of your property; if it be generally considered that it would be for the greater good of the greater number to divide your park and garden into peasant properties and cottage allotments, to double the wages of the workmen in your employment, or to subject you and the likes of you to a graduated income tax for the purpose of setting up national workshops to compete with you in your own trade; and, if you do not readily enter into the same views, then the said numerical majority are not simply warranted in taking the law into their own hands and doing, in spite of you, what they think ought to be done with your property, but would be culpably remiss if they neglected so to act.

Now it is needless to dwell on the extent to which that large numerical majority of our fellow-citizens which consists of the working classes is imbued with this notion, nor,

except to those who are similarly imbued, can it be necessary to insist that there is no notion of which it is more indispensable to disabuse the working-class mind. This, accordingly, I strove to do throughout a recent work of mine, 'On Labour,' particularly in the chapter which treats of the claims and rights thereof. I there earnestly pleaded that there may be, and are, private rights independent of utility which no public needs can cancel; that all which any man, or set of men, is entitled to exact from another is payment or fulfilment of what is due to him or them from that other; that unless the poverty of the many has been caused by the few, the many are not warranted in extorting relief of their wants from the few; that the mere circumstance of their being without food or work does not entitle the poor to be fed or employed by the rich, for that there is likewise a justice independent of and superior to utility, consisting simply of respect for rights, while injustice consists simply of violation of rights.

In so arguing, I ran directly counter to Utilitarianism, provoking thereby a retaliatory assault from Utilitarianism's tutelary champion, who, as readers of the 'Fortnightly Review'[1] are aware, bore down upon me with an energy no whit the less effective for being tempered with all knightly courtesy. Yet, not to say it vainglorioously, I am not conscious of having been shaken in the saddle, and I now return to the encounter with modest assurance, firmly believing mine to be the better cause, and recollecting too that in a contest with Mr. Mill, let the issue be what it may, I may at least comfort myself with the reflection

Minus turpe vinci quam contendisse decorum.

---

[1] See the No. for June, 1869.

I must at the outset be permitted to remark that one or two of Mr. Mill's objections to my statements are based upon misconception of their meaning. I never questioned, but, on the contrary, have always in the distinctest terms admitted that society is perfectly at liberty to put an end to the institution of property in land. No extremest Socialist ever went beyond me in proclaiming that the 'earth was bestowed by the Creator, not on any privileged class or classes, but on all mankind and on all successive generations of men, so that no one generation can have more than a life interest in the soil, or be entitled to alienate the birthright of succeeding generations.'[1] No one more fully recognises that property in land exists only on sufferance and by concession, and that society, which made the concession, may at any moment take it back on giving full compensation to the concessioners.

Again, when asserting the inviolability of moveable, as distinguished from landed, property, I was careful to limit the assertion to property honestly acquired. I never supposed it possible to acquire by prescription 'a fee simple in an injustice.' Only, if in any particular instance it be suspected that property has been acquired by force, fraud, or jobbery, I contend that the *onus probandi* lies on him who raises the question. It is for him to show, if he can, that a commercial fortune has, as Mr. Mill suggests, been built up by 'jobbing contracts, profligate loans, or other reprehensible practices.' But if this cannot be shown, the validity of the actual possessor's title must not be impugned. Property must be treated as of innocent acquisition and derivation until proved to be of guilty. And that not merely because there could otherwise be no rights

[1] 'On Labour,' p. 93.

of property at all, since it must always be impossible for any owner to demonstrate that neither he nor any one of those from whom he derives ever either overreached in a bargain or failed in a contract; but also, and much more, because whether a person be or be not the rightful owner of the wealth in his possession, no one can possibly be entitled to despoil him unless the wealth can be shown to have been ill-gotten. That right must be held to be complete with which no one can show a right to interfere.

The gravest, however, of Mr. Mill's criticisms is that mine is 'a doctrine *à priori*, claiming to command assent by its own light, and to be evident by simple intuition.' This is an imputation to which I am so unaware of having laid myself open that I can account for its having been made only on the supposition that Mr. Mill, in common with most other Utilitarians, imagines that their only opponents are Intuitionists, and that it is only necessary to set aside the tenets of these in order to get their own established instead. If this were really the case, utilitarian advocacy would be a comparatively easy task. Intuitionism, whether capable or not of being disproved, is by its nature unsusceptible of decisive proof. If I, in support of the proposition that there is in the human mind an intuitive sense of any sort, were to assert that I had such a sense while you denied that you had, it would be impossible for me to prove you to be mistaken, while, unless you were mistaken as to your individual experience, I should clearly be mistaken as to the generalisation which I had based upon mine. But I never said a word about an intuitive sense of right and wrong. How could I, seeing, as no one who chooses to look can fail to see, that the instincts of untutored children prompt them to disregard all rights but

their own, to spit cockchafers, rob birds' nests, and confiscate younger children's cakes and apples? All I say is that there may be and are rights independent of and even opposed to utility, and these, for reasons which shall immediately be stated, I call natural rights; but I do not say that they are intuitively perceived. As for sense of justice or of duty, or moral sense or faculty, what I understand by that is not recognition of certain rights or duties as such, but recognition of the obligation to respect whatever rights and to fulfil whatever duties are recognised, according to which definition it is mere tautology to add that the sense or faculty in question originates simultaneously with the recognition of any rights or duties. For inasmuch as rights invariably imply corresponding obligations—inasmuch as if a thing be rightfully claimed, that same thing must needs be due or owing, it is of course impossible to perceive that a thing is *owing* without perceiving at the same moment that it *ought* to be paid. On this account, and with this explanation, I should not scruple to speak of the moral sense as intuitive; but if for that reason I am to be called an Intuitionist, so equally must Mr. Mill, for he has said precisely the same thing. He likewise has said that 'the moral faculty, if not a part of our nature, is a natural out-growth from it, capable, in a certain small degree, of springing up spontaneously.'

II.

By my avowal of a belief in 'Natural Rights,' I feel that I must have incurred in philosophic quarters a sort of civil contempt, which I am very desirous of removing, and

which will, I trust, be somewhat diminished on my proceeding to explain how few and elementary are the rights that I propose for naturalisation. They are but two in number, and they are these:—(1) Absolute right, except in so far as the same may have been forfeited by misconduct or modified by consent, to deal in any way one pleases, not noxious to other people, with one's own self or person; (2) right equally absolute to dispose similarly of the produce either of one's own honest industry, or of that of others whose rights in connection with it have been honestly acquired by oneself. I call these 'rights,' because there cannot possibly anywhere exist either the right to prevent their being exercised, or any rights with which they can clash, and because, therefore, by their freest exercise, no one can possibly be wronged, while to interfere with their exercise would be to wrong their possessor. And I call them 'natural,' because they are not artificially created, and have no need of external ratification. Whoever thinks proper to deny this—whoever, as all Utilitarians do, contends that society is entitled to interfere with the rights which I have called natural, is bound to attempt to show how society became so entitled; when for the claim he puts forward on society's behalf he will find it impossible to produce any plausible pretext, without crediting society with possession of a right belonging to that same 'natural' class, the existence of which he denies. For, as there can be no rights without corresponding obligations or duties, if it be really the right of society to deal at its discretion with the persons or effects of individuals, it must be incumbent on individuals to permit themselves and whatever is theirs to be so dealt with. Have, then, individuals incurred any

such obligation? No obligation, be it remembered, can arise, except through some antecedent act of one or other or both of the parties concerned. Either a pledge of some sort must have been given or a benefit of some sort must have been received. Now undoubtedly there are no limits to the extent to which society and its individual members might have reciprocally pledged themselves. It might have been stipulated by their articles of association that society at large should do its utmost for the welfare of each of its members, and that each of its members should do his utmost for the welfare of society at large. But it is certain, either that no such compact ever was made, or that, if made, it has always been systematically set at nought. Society has never made much pretence of troubling itself about the welfare of individuals, except in certain specified particulars; so that, even if individuals had, on condition of being treated with reciprocal solicitude, accepted the obligation of attending to the welfare of society in other than the same particulars, that conditional obligation would from the commencement have been null and void. The one thing which society invariably pledges itself to do is to protect person and property, and by implication to enforce performance of contracts; and the two things which individual associates in turn pledge themselves to do are to abstain from molesting each other's persons and property, and to assist society in protecting both. In so abstaining and so assisting consist all those 'many acts and the still greater number of forbearances, the perpetual practice of which by all is,' as Mr. Mill says, 'universally deemed to be so necessary to the general well-being, that people must be held to it compulsorily, either by law or

by social pressure.'[1] Under one or other of these two heads may be ranged everything that individuals owe to society in return for the mere protection which they receive from it.

True, there is an universal understanding that individuals shall be subject to any laws, whether wise or foolish, provided only they be of equal and impartial operation, which may be enacted by a numerical majority of the community to which the individuals belong; and in this manner individuals may become bound by any number of miscellaneous pledges, society acquiring simultaneously the right to hold individuals to the performance of those pledges. Thus, if by the vote of an unimpeachably representative House of Commons it were declared to be for the general good, and agreed to accordingly, that every one should be vaccinated or circumcised, it would be incumbent on every one to submit quietly to vaccination or circumcision, however deleterious the operation might be deemed by some. Or if, improving upon a hypothetical suggestion of Mr. Mill, a parliament elected by constituencies in which the labouring-class element greatly predominated, should prospectively forbid the accumulation by any individual of property beyond a specified amount, then, though the almost certain consequence would be that the prescribed limit of accumulation would not be exceeded, still if it were exceeded, the accumulator could not justly complain when the surplus was forfeited according to law. Yet even thus the obligations or duties created will correspond exactly with the pledges given; none will be incurred except such

[1] 'Fortnightly Review' for June, 1869, p. 683.

as have been imposed by special legislation—nor even those, unless the legislation have been impartial. A law requiring people to pay poor's-rates would not suffice as a pretext for requiring them to pay education rates likewise. Neither if, instead of passing the prospective law just now supposed, a governing majority which had previously always permitted the indefinite accumulation of wealth, were retrospectively to decree the forfeiture of all past accumulations beyond a defined amount, would individuals be morally bound to submit to such a decree if they could contrive to evade it, any more than sexquipedalians would be bound to lay their heads on the block in obedience to a law directing everybody six feet high to be decapitated. All such partial legislation would be tyrannical, and circumstances must be very peculiar indeed to make submission to tyranny a duty. But of all conceivable legislation, none could possibly be more partial, or therefore more tyrannical, than such as should give to society a general power of dealing at its pleasure with its associates, and of arbitrarily subjecting separate classes or individuals to exceptional treatment. Even, therefore, if a law to such monstrous effect were enacted, it could have no morally binding force. It would be no one's duty to acquiesce in it.

I will not here stop to dispute, though I am not sure that I could without some slight reservation admit, that the receipt of unasked-for benefits places the recipient under precisely the same obligation to benefit his benefactor, as if the good received by him had been conferred on express condition of his availing himself of the first opportunity to render equal good. I will not stop to dispute, for instance, that a person saved from drown-

ing at the risk of his own rescuer's life, would be bound, on occasion arising, to risk his own life in order to save his former rescuer's. For my immediate purpose, it may suffice to remark that society has never been in the habit of showing such parental solicitude for its component members as would warrant its claiming filial devotion from them. In the matter of philanthropy its practice has never been in advance of its very moderate professions. It has invariably contented itself with rendering certain specific services, never failing to exact in return fully equivalent services of each species.

In candour, however, there must be admitted to be innumerable blessings not yet adverted to, including indeed most of those by the possession of which man is distinguished from brutes, for which he is in so far indebted to society that, but for the instrumentality of society, they would never have been his. Unless individuals had formed themselves into communities, civilization could have made no sensible progress: there could have been no considerable advances, material, intellectual, moral, or æsthetic. Not only should we have been destitute of all the comforts and luxuries that now surround us, we should have lacked also whatever cerebral development we have attained, together with all its concomitants and consequences; whatever of intelligence, or moral perceptiveness, or artistic taste we have to boast of. Still, though none of these faculties could have made much approach to maturity except under the shelter of society, they are not gifts of society. Without the help of a plough, land cannot be ploughed; but we do not therefore credit the ploughmaker with the achievements of the ploughman. Neither is society to take to itself

praise because its members have made good use of the protection which, in consideration of stipulated services on their part, it has afforded them. Besides, whatever we inherit from society, we inherit from a society of members no longer in being. Let the dead come to life again, and it may then become us to examine their claims upon our gratitude, but we need not meanwhile confound past and present generations, nor our forefathers with our contemporaries. To the mass of these latter, at any rate, we are none of us indebted for our brains or our aptitudes of thought and feeling, and the circumstance of our being joint sharers with them in patrimony bequeathed by a common ancestry, affords no very obvious reason why our share of the inheritance, together with whatever else we possess, should be at their absolute disposal.

Thus it appears that in no one of the ways in which alone can originate the obligations which must always precede or accompany artificially-created rights, has that particular obligation arisen without which it is impossible for society to obtain artificially the right of preventing individuals from doing as they will with their own. No sufficient pledge has been given by one side, no sufficient benefit conferred by the other. Individuals never agreed to place their all at the disposal of society; society never rendered to individuals any services entitling it to claim such boundless gratitude. One service which it invariably undertakes is that of protecting person and property. This is its chief and primary duty, the fulfilment of which is always the first object of its institution, often the only one it acknowledges. But clearly it cannot by performance of a duty acquire the right of doing the exact reverse of that duty. It cannot by protecting acquire the right

of molesting. It cannot by preventing person and property from being meddled with, acquire in its corporate capacity the right of itself meddling. Since then this right of meddling, this right of disposing of what is exclusively some individual's own, otherwise than the owner wishes, has not been acquired by society artificially, it must, if it do actually belong to society, have been come by naturally; and this accordingly is what Utilitarians really, though perhaps unconsciously, assume, treating moreover this gratuitous assumption of theirs as a self-evident truth.

For, as Utilitarians themselves cannot fail on reflection to perceive, they offer no shadow of argument in support of that 'greatest happiness principle' on which their whole system rests. Commencing with the undeniable postulate that happiness is the sole object of existence, and perceiving that individual happiness alone would be a very misleading object, they proceed to take quietly for granted that the only happiness at which life ought to aim is social happiness. Now, undoubtedly social happiness is of more importance than individual happiness—the happiness of many than that of one or a few; neither can there be any worthier object of pursuit than the greatest happiness of the greatest number. All this is seen without being said, but what is by no means so easily seen is how it can be incumbent on any one to pursue that object to his own detriment—how it can be imperative on one or on a few to sacrifice his or their happiness in order to promote that of the many. Plainly such self-devotion cannot be for their personal advantage, and Utilitarianism does not even attempt to show how it can have become their duty. Meritorious, magnanimous, heroic in the highest degree it

would certainly be, but does not that very circumstance prove conclusively that it cannot be due, inasmuch as there is nothing meritorious in merely doing one's duty and paying one's debts? But of that which is not due, how can payment be rightfully insisted upon? What the few are under no obligation to yield, how can the many be entitled to extort, or how can the worthiness of the latter's object excuse their doing that which they have no right to do? Is any object, however worthy, to be pursued regardless of all collateral considerations? To these objections Utilitarians have no answer to make. All they can do is tacitly to take for granted the disputed duty and right. That the less ought to give way to the greater, and the few to the many, and that the many may rightfully therefore, if need be, use force to compel the less or the few to give way—these are treated by them as incontestable propositions, even as 'doctrines *à priori*, claiming assent by their own light, evident by simple intuition.' And although thus from their own inner consciousness evolving the very first principles of their own philosophy, the premises of their deduction that social happiness is the proper aim in life, and that conduciveness to such happiness is the test of morality—'Intuitionists,' strange to say, is the distinctive appellation which they propose to affix to all those who hesitate to accept as ethical foundation stones the results of their intuitional evolution.

Scarcely by a taunt so readily rebuttable will anti-Utilitarians be excited to speedier apprehension of the nature of the lien which corporate self-interest is presumed to have upon individual self-devotion. Not the less tenaciously may they cling to their belief in the right of every

one to do as he will with whatever has come by fair means into his exclusive and complete possession. Neither, I venture to think, need less store be set by that right in consequence of an objection very adroitly taken to it by Mr. Mill, which, on account both of its inherent ingenuity and of its having been addressed more immediately to myself, it would be inexcusable in me to leave unexamined. In Mr. Mill's opinion, the right in question, even if valid, would be valueless, because it would be neutralised by precisely similar rights belonging to society. If, he argues, individuals are at liberty to do as they will with their own, so likewise must society be. But 'existing social arrangements and law itself exist in virtue not only of the forbearance, but of the active support of the labouring classes' who in every community constitute a numerical majority. This working-class majority might then if they pleased withdraw their support from existing arrangements, thereby depriving person and property of social protection; and by merely threatening such withdrawal they could compel individuals to acquiesce in their most extravagant demands. 'They might bind the rich to take the whole burden of taxation upon themselves. They might bind them to give employment, at liberal wages, to a number of labourers in a direct ratio to the amount of their incomes. They might enforce on them a total abolition of inheritance and bequest.' Mr. Mill maintains that these things, although exceedingly foolish, might according to my principles, with perfect equity be done; nay, if I understand him correctly, that according neither to mine nor to any one else's principles can any adequate reason be assigned why they should not be done, except that their practical results would be baneful instead of beneficial.

And taking this view, he is fully warranted in asking what it can matter that according to my theory 'an employer does no wrong in making the use he does of his capital, if the same theory would justify the employed in compelling him by law to make a different use—if the labourers would in no way infringe the definition of justice by taking the matter into their own hands and establishing by law any modification of the rights of property which in their opinion would increase the remuneration of their labour.'[1]

My reply to this and to the whole argument is the following. So long as society continues to exist, society cannot divest itself of the primary function for the discharge of which it was originally constituted. Society, having come together in the first instance, tacitly pledged to extend protection to each individual associate, cannot, without breach of contract, withdraw that protection. It may, indeed, make any impartial laws it pleases, and attach any penalty it pleases to violation of any impartial law, but it cannot in equity, whatever it may in practice, place any of its members outside the law; neither, most certainly, even if its competence did extend thus far, could it go the farther length of conferring on any one the right of doing wrong to an outlaw. It may even be doubted whether, if an outlaw were to injure any one still belonging to the society, any but the injured person himself would be warranted in retaliating. The sole reason that I can perceive why even he would is, that his rights had been infringed, and that reparation was due to him for any damage sustained by him in consequence, while, on the other hand, the aggressor had forfeited those rights of his

[1] See 'Fortnightly Review' for June, 1869, pp. 687-8.

which might otherwise have forbidden the injured person from taking the reparation due. But society had had none of its rights infringed. By society no injury had been sustained. To society, therefore, no reparation was due; and society, it seems to me, would have no right to insist on exacting reparation not due to itself from one whom it had forcibly extruded from its communion, and who, therefore, was no longer amenable to its jurisdiction. Society might, indeed, dissolve itself, proclaiming that 'every man for himself, and God for all,' should thenceforward be the rule. But although it might thus leave individual rights without other defence than that of the owner, it could not annihilate individual rights. It might cancel the right to mutual protection, but it could not, in place of that, create a right of mutual molestation. One's own person and property would still be as much one's own as before, and whoever outraged either would not be the less a wrong doer because society permitted his wrong doing to remain unpunished. In all ethical investigations it is impossible to guard too watchfully against the smallest approach to confusion of might with right.

Instead of being valueless, the particular rights of which Mr. Mill speaks so disparagingly, appear to me to possess a value which can scarcely be exaggerated. They are, as may be readily perceived, identical with the two which I have termed 'natural,' and of which I began by saying that they are exceedingly elementary, but of which I have now to add that they are also all-comprehensive, for that there are no genuine rights whatever, however numerous or complex, which neither are included within, nor branch out from, them. This will be manifest on comparison of them with the items enumerated in any other catalogue

of rights; as, for instance, with the one drawn up by Mr. Mill, according to whom all rights may be classified as follows:—(1) Legal rights; (2) moral rights; (3) the right of every one to that which he deserves; (4) the right to fulfilment of engagements; (5) right to impartiality of treatment; (6) right to equality of treatment.[1] Each of these varieties will repay a brief examination.

Under the head of 'legal' rights are commonly placed, not those only which are conferred, but those also which are confirmed, by law. Such as law has merely confirmed, however, are of course not the creatures of law. But it is admitted on all hands that a law may be unjust—that is to say, it may without consent from the parties concerned, infringe some previously existing right—and as the right so violated cannot have been created by law, inasmuch as what law had been competent to create, law would be equally competent to cancel—it is clear that there must be rights other than those created by law, rights whose origin was independent of, and anterior to, law. It is apparently to rights of this description that Mr. Mill applies the name of 'moral' rights. Examples of them are a man's rights to personal liberty and to property in whatever belongs to him as having become his by honest means, to both of which, unless he had forfeited them by misconduct, he would be equally entitled, whether his title to them were or were not recognised by law. The only genuine rights which law can create, or consequently can have to confer, are privileges in respect of person or property other than one's own. But such legalised privileges are not necessarily rights. Whether they are so actually or not depends mainly on the character of the

[1] 'Utilitarianism,' by J. S. Mill, pp. 64–8.

legislative authority. A right to interfere with rights not based upon law cannot be conferred without the consent of the parties in whom the independent rights are vested, given either directly by themselves or indirectly through their representatives. If a legislative body be truly and thoroughly representative of the community which it controls, then every one of its enactments, however bad or foolish, is virtually an engagement to which every member of the community is a party, and any privilege arising out of it becomes to all intents and purposes a right. If, on the other hand, the legislative authority be autocratic, or if it represent only certain favoured sections of the community, then none of its enactments, however wise and good, of which a majority of the public disapprove, and which interfere with the rights termed by Mr. Mill 'moral,' are morally binding, except on the legislators themselves and their immediate constituents. Any one else may quite blamelessly break the law, and resist any privilege thereby created, though he must, of course, be prepared, in case of detection, to take the legal consequences of his disobedience. For example, protective duties, however impolitic, if imposed because a majority of the nation were of opinion that a certain branch of domestic industry had better be fostered by protection, could not be evaded without injustice to those engaged in the protected industry, though there would be no injustice in smuggling, if they had been imposed in opposition to the general sense of the public by a packed Parliament or an absolute monarch. The same legal monopoly, which in the one case could not be justly evaded, could not in the other be justly enforced. A legal privilege, in short, becomes a right only when a majority of those at whose expense it is to be

exercised, have formally consented either directly or indirectly to its being exercised; and it then becomes a right solely because an engagement has been entered into, in virtue of which, whatever is requisite for its satisfaction has become due. Thus it appears that, whatever legal rights are genuine, and are not at the same time 'moral' rights also, resolve themselves into specimens of the right to fulfilment of engagements, and belong not more to the first than to the fourth of Mr. Mill's categories, to which latter, therefore, we may at once transfer our attention.

Why is it, then, that every one has a right to fulfilment of engagements, to have faith kept with him, to have promises observed? Solely, as it seems to me, because whatever has been promised to any one becomes eventually his due, and because whatever is due or owing ought to be paid. A promise is nothing less than a prospective transfer of property in some thing, or in the advantage derivable from some action, and when the time appointed for making the transfer arrives, whatever has been promised, whether actually transferred or not, becomes the complete property of, and in the fullest sense of the word belongs to him to whom it has been promised; so that the right to fulfilment of engagements resolves itself into the moral right of every one to have that which belongs to him, and we have already seen that every legal right which cannot on other grounds be shown to be a moral right resolves itself into a right to fulfilment of an engagement. Whence it follows that there are no legal rights whatever which are not likewise moral rights, and which might not therefore be equally rights, even though they had never been legalised. Whence, and from what has just been observed with respect to the right to fulfilment of engagements, it further

follows that of the five branches of Mr. Mill's classification, the first and fourth may without inconvenience be dispensed with, and that the second will suffice to do duty for itself and for the other two.

We have next to consider a person's right to that which he deserves, with reference to which, and to my assertion that there is no necessary correspondence between the remuneration which a labourer ought to receive and either his merits or his needs, Mr. Mill inquires as follows:—'If justice be an affair of intuition, if we are guided to it by the immediate and spontaneous perceptions of the moral sense, what doctrines of justice are there on which the human race would more instantaneously and with one accord put the stamp of its recognition than these—that it is just that each should have what he deserves, and that, in the dispensation of good things, those whose wants are the most urgent should have the preference?' But surely however just it be that each should have what he deserves, it is so only on condition that he have it from those from whom it is due, and do not take it from those from whom it is not due. The latter, surely, at least as much deserve to be allowed to keep what they have already by honest means got, as others to get what they have not yet got. But if so, then that these should be deprived of their deserts, in order that those may get theirs, is surely about the very last doctrine that ought to be put forward as self-evident and intuitive. 'But,' Mr. Mill proceeds to ask, 'if there be in the natural constitution of things something patently unjust, something contrary to sentiments of justice, which sentiments, being intuitive, are supposed to have been implanted in us by the same Creator who made the order of things that they protest against—do not these senti-

ments impose upon us the duty of striving by all human means to repair the injustice? And if, on the contrary, we avail ourselves of it for our own personal advantage, do we not make ourselves participators in injustice, allies and auxiliaries of the Evil Principle?'[1] Now, as I have already said, I am myself no intuitionist, but if I were, I should not the less feel warranted in here replying that by no theory of justice, intuitive or other, can the passive spectator of an injustice to which he is no party be bound to assist in repairing the injustice, simply because he has the means. A creditor denied payment of his fair debts does not get what he deserves; but upon whom, except the defaulting debtor, does it therefore become incumbent to repair the latter's injustice by paying his debts? And if there be in the general order of mundane affairs, as—provided I may attribute the existence of it, as of all other evil, not to God, but to the devil—I don't mind admitting there may be—something which prevents many of our fellow-creatures from getting their deserts, something contrary, therefore, to our sentiments of justice whether those sentiments have been implanted in us by the Creator or not, I still maintain that those sentiments do not impose upon us the duty of striving to correct the injustice. They necessarily stimulate us more or less powerfully, according to their own intrinsic strength, to undertake that noblest of all tasks, but they do not render it imperative upon us. Whether, if we actively avail ourselves of the injustice for our own profit—though this, by the way, is no more than every one of us does who takes advantage of competition among labourers to obtain labour for a less price than he perceives it to be worth—we are not making ourselves

[1] 'Fortnightly Review' for June, 1869, pp. 684–5.

auxiliaries of the Evil Principle, may be matter of opinion; but, at all events, we do not even then become participators in an injustice which we did not create, and do not uphold or help to perpetuate, but merely accommodate ourselves to. At worst, we are but accessories to it after the fact. In simply accepting the situation and striving to make the best of it for ourselves, without trying to make it better and only abstaining from making it worse for others, our conduct may be contemptible, mean, base, disgusting, or what you will, only not iniquitous; for whatever, short of their deserts, may, from the cause supposed, be received by our fellow-creatures, although in one sense plainly due to them, is as plainly not due from us, and we cannot, without palpable injustice, as well as palpable abuse of words, be charged with injustice for merely declining to pay debts that we do not owe.

The rights to impartial and to equal treatment need not detain us long. There is no right to impartiality except where impartiality is due, and it is only in a small minority of cases that impartiality is due. There is nothing iniquitous in showing favour to the extent of giving one person more than his due, provided no other person be prevented from having as much as his due. The lord of the vineyard who gave unto all his labourers alike, the same to those who had wrought for him but one hour as to those with whom he had agreed that for a penny they should bear the burden and heat of the day, did the latter no wrong; his eye was not the less good because theirs was evil. A judge, or an arbitrator, or the conductor of a competitive examination, is bound to make his award without respect of persons, because he cannot favour one without withholding from some other what that other

ought to have. On every distributor of Government patronage, likewise, it is morally incumbent to select for the public for whom he is trustee, the best servants he can find. An English Prime Minister has no right to make his son a Lord of the Treasury or of the Admiralty, if he know of any one better fitted for the post and willing to accept it; and if he name any but the fittest candidate, he fails in his duty to the community on whose behalf he acts. But a private employer, acting for himself alone, is under no similar obligation, and may take whom he pleases into his service, and assign to him whatever position therein he pleases, without affording any cause for reasonable complaint to those more capable members of his establishment whom he places under one less capable. In short, except in those rare cases in which impartiality means rendering what is due, in which cases it is but another name for justice, there is nothing unjust in disregarding it.

As for equality, although its 'idea,' as Mr. Mill says, 'often enters as a component part both into the conception and into the practice of justice, and in the eyes of many persons constitutes its essence,'[1] I can think of no single case in which, unless by reason of some special agreement, it can possibly be due, or in which, consequently, there can be any right to it. Even that equal protection for whatever is indisputably one's own, the claim of all to which is commonly admitted almost as a matter of course, is really due from those only by whom the obligation to afford it has been tacitly or formally accepted. On this ground it is due from the public at large, and from those individuals to whom the public has delegated certain of its tutelary

[1] 'Utilitarianism,' p. 267.

functions, but from no other individuals whatever. No one else is bound to take, for the protection of all other people, whatever pains or trouble he takes for his own security—to watch, for instance, as vigilantly that his neighbour's house as that his own is not broken into. And while the one solitary claim of any plausibility to universal equality of treatment requires to be largely qualified before it can be conceded, there is no other claim of the kind which does not carry with it its own refutation; there is no other which does not partake of the absurdity patent in the communistic notion that all the members of a society are entitled to share equally in the aggregate produce of the society's labour. How is it possible that an equal share can be everybody's due, if different persons may have different deserts, and every one's deserts be likewise his due?

We have now gone completely through the list of artificially created rights, without finding one that does not derive all its validity from connection with some pre-existing right. We have seen that among so-called rights none whatever are genuine by reason merely of any extrinsic sanction they may have received, but that all real rights either are such intrinsically, or are based upon, or embody within them, some right purely intrinsic. We have seen that there are two rights endued with this intrinsic character—viz., that of absolute control over one's own self or person, and that of similar control over whatever else has by honest means come into one's exclusive possession, or become due or owing to him exclusively; and, because these rights, wherever the conditions necessary for their exercise occur, of necessity exist, springing up at once and full grown, in the necessary absence of any antagonistic rights that could prevent their existing, I have

not scrupled to call them 'natural;' nor do I think that further apology can be needed for such application of the epithet. To maintain, moreover, that these natural rights constitute the essence of all artificial rights, was simply equivalent to saying that no so-called right can be genuine unless requiring for its satisfaction no more than already actually belongs or is due to its claimant; while every right which does require no more must be genuine, because there can nowhere exist the right to withdraw or to withhold from any one anything that is exclusively his. These seeming truisms are indeed diametrically opposed to a theory which enters on its list of friends names no less illustrious than those of Plato, Sir Thomas More, Bentham, and Mill. Still, whoever, undeterred by so formidable an array of adverse authorities, is prepared to accept the description of rights of which they form part, will have no difficulty in framing a theory of justice perfectly conformable thereunto.

The justice of an action consists in its being one, abstinence from which is due to nobody. The justice of inaction—for just or unjust behaviour may be either active or passive—consists in there being nobody to whom action, the reverse of the inaction, is due. 'Justice, like many other moral attributes, may be best defined by its opposite,' and all examples of injustice have this one point in common, that they withhold or withdraw from some person something belonging or due to him, or in some other way infringe his rights, and consequently wrong him. Conversely, a point common to and characteristic of all just acts and omissions, is that they neither prevent anybody from having that which is due to him, nor in any other way infringe any one's rights, and that they consequently

do no one any wrong. It is not essential to the justice of conduct that anything due be thereby rendered. It suffices that nothing due be withheld. All conduct is just by which nobody is wronged.

It is further to be noted that all just conduct is of one of three kinds—that which justice peremptorily exacts; that which she merely permits, and may even be said barely to tolerate; and that which she approves of and applauds, without, however, presuming to enjoin it. Conduct of this last sort is just in that it leaves nothing undone which justice requires, but it is also more than just in that it does more than justice requires. To speak of it as simply just, is therefore somewhat disparaging. It is just in the sense in which the less is comprehended by the greater. He who faithfully fulfils an engagement that has provided for his making a reasonable return for whatever advantage he might obtain under it, shows himself simply just in the matter, and nothing either more or less. He who, having driven a hard bargain, insists rigorously upon it, giving nothing less, and taking nothing more than had been mutually stipulated, is likewise strictly just, but is also shabby, and deserves to be told so plainly. He who, besides making full return, according to contract, for value received, does something more, at some inconvenience to himself, out of regard for another's need, is not a whit more just than either of the other two, but he is generous into the bargain, and deserves thanks in proportion.

Rising out of these considerations are two others equally meriting attention.

In the first place, we may see additional cause for distrusting the testimony which etymology has been supposed to reco in favour of 'an origin of justice connected with

the ordinances of law.'[1] That '*justum* is a form of *jussum*, that which has been ordered:' that '*δίκαιον* comes directly from *δίκη*, a suit of law:' that '*recht*, from which came right and righteous, is synonymous with law,' is obvious enough; and it may not be out of place to add that in French the word *droit* has, with almost savage irony, been selected as the technical name, not of law simply, but of legal procedure with all its crookedness.[2] Still it seems more in the ordinary course of things to explain this linguistic identification of law with justice, by supposing conformity to justice to have been the primitive element in the formation of the notion of law, than by supposing 'conformity to law to have been the primitive element in the formation of the notion of justice.' It seems more probable that certain things were commanded because they were deemed just, than that they were deemed just because they were commanded. Even the ancient Hebrews, who 'believed their laws to be a direct emanation from the Supreme Being,' although, if asked why it was wrong to kill or steal, they might very likely have replied, 'Because theft and murder have been forbidden by God,' would still have acknowledged that it would be wrong to kill or steal, even if there had been no divine prohibition of the practices. And when we recollect that among 'other nations, and in particular the Greeks and Romans, who, knowing that their laws had been made by men, were not afraid to admit that men might make bad laws, . . . the sentiment of justice came to be attached, not to all violations of law, but only to violations of such

[1] 'Utilitarianism,' pp. 69, 70.

[2] 'Les légistes leur fournirent au besoin l'appui du droit contre le droit même.'—De Tocqueville, 'L'Ancien Régime,' p. 567.

laws as ought to exist,' what had previously appeared probable is converted into certainty. Principles of justice to which law ought to conform cannot but have been anterior to law, and cannot have originated in law. And certainty on this point grows still more certain, assurance becomes doubly sure, when we reflect that, as was pointed out above, many things are just which, not only does not law command, but which justice barely tolerates, permitting them, indeed, to be done, but permitting them also to be reprobated.

Secondly, we may perceive that in mere justice there can be nothing praiseworthy. Justice is nothing more than abstinence from injustice, and no commendation can be due for not doing that the doing of which would deserve censure. Justice, if entitled to be ranked among the virtues at all, is at best only a negative virtue, as being the reverse of a vice. It is distinguished from all other moral qualities, as being the single and solitary one, compliance with whose behests is a duty which we owe to others. Of meekness, patience, temperance, fortitude, courtesy, whatever display it may for any reason be our duty to make, precisely that display justice requires us to make. Whatever of any one of these qualities justice does not exact from us, we may, without wronging any one, omit. We must not, indeed, incapacitate ourselves by tippling for our proper work, nor offend the eyes or ears of decenter folk by reeling obstreperously through the streets; but, if we take the precaution of retiring during an interval of leisure to our privy chamber, our making beasts of ourselves then and there to our heart's content, is our own concern, and nobody else's. No doubt, in doing this we should be doing very wrong, but still there is no con-

tradiction in saying that we should have perfect right to do it, inasmuch as we should thereby be wronging no one but ourselves. Of another class of virtues—of all those which admit of being directly contrasted with justice, and which may for shortness' sake be without much inaccuracy comprehended under the general designation of generosity —it may, with literal truth, be said that the practice of them is no part of our duty to our neighbour. Provided we are careful to let every one have what, between him and us, are his bare dues, we may be selfish, mean, sordid to excess, without infringing any one else's rights, without the smallest dereliction of our duty to others. True, ethical writers are in the habit of speaking of 'duties of perfect and imperfect obligation,' but of these 'ill-chosen expressions,' as Mr. Mill,[1] with abundant reason, styles them, the latter, more particularly, is of a slovenliness which ought to have prevented its being used by any 'philosophic jurists.' What some of these mean by it is stated to be 'duties in which, though the act is obligatory, the particular occasions of performing it are left to our choice; as in the case of charity or beneficence, which we are indeed bound to practise, but not towards any defined person, or at any prescribed time.' But, according to this explanation, there are duties of which performance may not only be indefinitely postponed, even until a morrow that may never come, but of which performance at one time will warrant non-performance of them subsequently; so that, for instance, he who has behaved charitably on past occasions, may be uncharitable afterwards. 'In the more precise language' of other writers, we are told that while 'duties of perfect obligation are those duties in virtue

[1] 'Utilitarianism,' pp. 72, 73.

of which a correlative right resides in some person or persons, duties of imperfect obligation are those which do not give birth to any right.' But, as where there is no right nothing can be due, it would seem from this that by duties of imperfect obligation are to be understood duties performance of which is not due. I hope to be pardoned for declining to accept these illusive distinctions as the boundaries which separate justice from the other components of morality. I neither understand how any obligation can be otherwise than perfect, nor do I recognise any duties whatever except those of justice. The main distinction between justice and all positive virtues I take to be that, whereas compliance with its behests is always imperative, compliance with theirs never is, but is always optional and discretionary. Of whatsoever is, for whatsoever reason, due, it is invariably justice, and justice alone, that demands payment or performance. Justice claims, and claims peremptorily, whatever is owing, but never puts forward the smallest pretension to anything that is not owing. But since whatever is *owing* plainly *ought* to be paid, and since justice never claims anything but what is owing, it is clear that there cannot be any merit in satisfying the claims of justice. Merit is possible only in actions which justice does not enjoin, but to which some other virtue exhorts.

From the main difference here pointed out, a minor collateral difference ramifies. Of whatever ought to be paid or done, payment or performance may be righteously enforced. Here I have the satisfaction of proceeding for a few steps side by side with Mr. Mill, although only, I am sorry to say, to part company again immediately. 'It is a part,' he says, 'of the notion of duty in every one of its

forms that a person may rightfully be compelled to fulfil it. Duty is a thing which may be *exacted* from a person as one exacts a debt. 'Unless we think it may be exacted from him, we do not call it his duty.'[1] Now, since justice never asks for anything but what is due, never makes a requisition compliance with which is not a duty, it follows that all those persons to whom its requisitions are addressed may be rightfully compelled to comply with them, whereas, since what every other virtue requires is always something not due, compliance with its requisitions is never a duty, and cannot, except unrighteously, be enforced. This—viz., the rightfulness of using compulsion in aid of justice, as contrasted with the wrongfulness of resorting to it in aid of generosity, rather than the rightfulness of punishing breaches of the one and not of the other, seems to me the 'real turning-point of the distinction' between the two. For gross disregard of generosity, and indeed of any other virtue, may rightfully be punished, justice fully sanctioning the punishment although indicating also the nature of the penalty to be inflicted in each case, and restricting it within certain limits. Whoever plays the dog in the manger in a manger of his own, or makes an exclusively selfish use of his wealth or other advantages, refusing to do good to his neighbour at however little sacrifice on his own part it might be done, is not thereby infringing anybody else's rights, or thereby wronging any one else. He is only exercising his own undoubted rights. Still he is exercising them in a manner deserving of severe reprobation, and which witnesses of his conduct may justly punish by testifying to him the scorn, disgust, or indignation he has excited. It is no more than just that he

[1] 'Utilitarianism,' p. 71.

should have his deserts and receive the punishment which has become his due. But justice, although permitting him to be punished for acting ungenerously, does not sanction his being compelled to make a show of acting generously. If his conduct had been unjust instead of simply ungenerous, no punishment would be adequate that did not force him to repair the evil he had done, or to do the good he had left undone. But the most flagrant breach of generosity, neither keeping nor taking away anything to which any one has a right, does nothing for which reparation can be due. It consists simply in a man's making an exclusively selfish use of what is exclusively his, and to make such use is one of the rights of property. Whoever exercises that odious right is justly punished by being shown how hateful we think him, but we must not, on pretence of justice, commit the injustice of depriving him of a right which is confessedly his.

It is not, then, by being rightfully liable to punishment that unjust differs from ungenerous conduct. The latter also ofttimes deserves and incurs punishment. But since there can be no merit in doing that the not doing of which would merit punishment, it may seem that, as in justice so likewise in generosity there cannot be anything positively meritorious. Neither in truth would there be if conduct were entitled to be styled generous simply as being the reverse of ungenerous. Generosity would then, like justice, be a virtue in no higher sense than that of not being a vice —a negative virtue if a virtue at all. But an action does not really deserve to be called generous unless what justice requires be exceeded by it in a degree more than sufficient to prevent the agent from deserving the imputation of meanness, nor even then unless the excess have been done

from a purer motive than that of the hope of praise or other reward. An action is generous only in the proportion in which it involves self-sacrifice, voluntarily undergone for the benefit of others, without any view on the agent's part to further compensation than that derivable from the consciousness of making other people happy. In such voluntary and disinterested self-sacrifice consists the merit which is one chief characteristic of generosity as of most positive virtue, distinguishing it from justice, in which there is never a surrender of anything which one would be warranted in keeping, but merely a rendering of what belongs or is due to others. All conduct, not immoral, admits, as already more than once intimated, of a tripartite division, into that which may be rightfully enforced; that of which, though it be not due nor rightfully enforcible, neglect deserves to be and may justly be punished by reproaches; that which is neither due nor reasonably to be looked for, but which involves a voluntary surrender for the good of others of some good which one might without reproach keep for oneself. Of this last description is the only conduct in which there is any proper or positive virtue.

So much and such complex argumentation may not impossibly be deemed a good deal in excess of what is requisite to establish the conclusion to which it points, and which may be summed up in the following very simple propositions:—That, by a person's rights being understood the privilege of having or doing whatever no other person has a right to prevent his having or doing, justice consists of abstinence from conduct that would interfere with that privilege; that justice, therefore, is not dependent on extrinsic sanction, but arises spontaneously from the nature of things, and may almost indeed be said to spring

necessarily from the meaning of words; and that its sole merit is exemption from the demerit that would attach to the withholding or withdrawing from any person anything belonging or due to that person. With all possible confidence, however, in the innate vigour of these propositions, I cannot suppose that they do not require all possible adventitious strengthening to be qualified to displace the doctrine to which they are opposed. I proceed, therefore, to test somewhat further the adequacy of the description of justice which they involve by confronting it with certain intricate problems, in presence of which the rival utilitarian definition will be found to be hopelessly at fault.

There are few subjects on which casuists have differed more widely than those of the legitimacy, and the proper measure of punishment. One thinks it unjust that anybody should be punished for the sake of example to others, or for any purpose except his own amelioration. A second replies that it is only for the sake of other people's good that an offender ought to be punished; for that, as for his own good, he himself should be left to decide what that is, and he is pretty sure not to decide that it is punishment. A third pronounces all punishment unjust, seeing that a man does not make himself criminal, but is made so by circumstances beyond his control—by his birth, parentage, education, and the temptations he meets with. Then, for the apportionment of punishment, some persons think there is no principle like that of the *lex talionis*—an eye for an eye, and a tooth for a tooth. Others that the penalty should be accurately proportioned to the immorality of the offence, by whatever standard that immorality be measured. Others, again, that punishment should be limited to the minimum necessary to deter from crime, quite irrespectively

of the heinousness of the particular crime punished. Of the first three of these opinions, Mr. Mill observes that 'they are all extremely plausible, and that so long as the question is argued as one of justice simply, without going down to the principles that lie under justice, and are the source of its authority, he is unable to see how any one of the reasoners can be refuted. For every one of them builds upon rules of justice confessedly true—each is triumphant so long as he is not obliged to take into consideration any other maxims of justice than those he has selected, but that as soon as their several maxims are brought face to face, each disputant seems to have as much to say for himself as the others. No one can carry out his own notion of justice without trampling upon another equally binding.'[1] This view of the matter, however, can scarcely be regarded as satisfactory. If utilitarian notions of justice cannot be carried out without trampling each other down, they plainly should not be suffered to go at large, but should be relegated forthwith to the limbo of oblivion. But right cannot really be opposed to right; justice cannot really be inconsistent with itself: it never can be unjust to do what is just. Anti-utilitarian justice tolerates no such intestine disorder. The sole ground on which she sanctions punishment is the indispensableness of punishment for the reparation of injury. Whoever has suffered wrong has been subjected to invasion of some right, personal or proprietary, and is entitled to amends for the outrage; while the aggressor from whom the amends are due, ought to render them because he owes them, and because he ought, may, if necessary, be compelled, to render them. By the breach of right which he has committed, he has forfeited his own corresponding

[1] 'Utilitarianism,' pp. 81, 82.

right, which may now be equitably set aside to whatever extent may be requisite for reparation of the evil he has done, one essential part of such reparation being adequate security against repetition of the wrong. So far as may be necessary for this purpose, punishment may equitably go, but no further. Genuine justice does not permit penal laws of human enactment to take into account the abstract turpitude of crime. That she reserves for divine cognisance, recollecting that 'Vengeance is mine, I will repay,' saith the Lord. Nor does she permit the smallest aggravation of punishment for the sake either of the offender's own mental improvement, or to discourage others from evil doing; neither, on the other hand, does she recognise any claim to abatement on the plea of an offender not having been able to help acting as he did. She would not, indeed, punish with death or with stripes an outrage committed by a lunatic or an idiot, partly because an outrage may be really less offensive for being committed unwittingly, inasmuch as it does not, at any rate, add insult to injury, and also because the corporal chastisement of a lunatic or an idiot could afford no reparation to the wounded feelings of a healthy mind. But so far as even an idiot or a lunatic was capable of making good the evil he had done by rendering what had in consequence become due, Anti-utilitarianism would require him equally with an erring saint or sage to make it, and equally, too, would subject him to whatever restraint might be deemed not more than sufficient to prevent his doing the same evil again. And of course she does not treat an offender of ordinary intelligence with indulgence which she would not show even to a lunatic, but exacts inexorably full reparation for what he has done, requiring him commonly to pay in kind so far as he can,

and to make up with his person for any deficiency. Within the limits thus marked out she is well content that, with the one object which alone justifies punishment, other secondary objects with which justice has no concern, should be combined. She is well content that the same penal measures as are called for in order to compensate the injured party, should also subserve the reform of the criminal, and serve as general deterrents from crime. But she protests against the notion that these, or any other objects, can ever excuse the infringement of any ordinance of justice, or of any of even a criminal's rights which the criminal has not forfeited by crime. Justice, in short, in her penal, as in all her other arrangements, has but to adhere closely to the anti-utilitarian principles of rendering what is due, and of taking nothing that is not due, in order to steer clear of all the difficulties by which the ablest and most accomplished Utilitarians confess themselves staggered.

A second greatly vexed question is, 'whether, in a co-operative industrial association, it is just or not that talent or skill should give a title to superior remuneration? On the one side it is argued that all who do the best they can deserve equally well; . . . that superior abilities have already advantages more than enough in the admiration they excite, the personal influence they command, and the internal satisfaction attending them; and that society is bound in justice rather to make compensation to the less favoured for this unmerited inequality of advantages, than to aggravate it. On the contrary side, that society, receiving more from the more efficient labourer, owes him a larger return; that a larger share of the joint result being actually his work, not to allow his claim to it is a sort

of robbery ; that if he is only to receive as much as others he can only be required to produce as much.'[1] 'Between these appeals to conflicting principles of justice,' Mr. Mill considers it impossible to decide. 'Justice,' he says, 'has in this case two sides to it, which it is impossible to bring into harmony, and the two disputants have chosen opposite sides ; the one looks to what it is just that the individual should receive, the other to what it is just that the community should give. Each from his own point of view is unanswerable, and any choice between them, on grounds of justice, must be perfectly arbitrary. Social utility alone can decide the preference.'[2] The form of justice depicted with this Janus-like aspect can scarcely be the utilitarian, since, whoever, on utilitarian grounds, selects one of its sides, must perforce, on the same grounds, reject the other. Still, it is spoken of as genuine justice, wherefore that there is a justice independent of utility, would seem, after all, to be admitted by Utilitarians themselves. It is for them, however, to deal with the dilemma which their own ingenuity has thus devised. My only concern with the two-headed monster they have imagined is to protest against its being mistaken for the one sole species of justice which Anti-utilitarianism recognises, and which never presents any such double-faced appearance. In the case before us anti-utilitarian justice would decide with her accustomed ease between the two appellants. What she would look to would simply be that each co-operator should have his due. But how much soever she might declare an inferior workman to deserve for doing his best, she certainly would not allow his deserts to extend to participation in the fruits of the toil of those of his fellows who had done

[1] 'Utilitarianism,' pp. 84, 85. [2] Ibid. p. 85.

better than he. His having produced as much as he was able could not render due to him a share in the larger produce of others of superior capacity. Very possibly the superior workmen might agree that all should participate equally in the aggregate results of their joint labour. If so, well and good. For so liberal a concession they would deserve credit, and thanks would be due to them from those in whose favour it was made; but this of itself would be a conclusive proof, if any were wanting, that the concession was an act, not of justice, but of generosity, not of debt, but of grace.

Again, what discordance is there not as to the most equitable repartition of taxation! That all should be taxed in equal proportion to their pecuniary means; that taxation should be a graduated percentage on income, rising as income rose; that all, whether rich or poor, should be taxed alike; that all should pay equal capitation, but unequal property-tax—these are some out of many divergencies of opinion, and 'from these confusions' there is, Mr. Mill considers, 'no other mode of extrication than the utilitarian.'[1] But if there were really no other, there would, in fact, be none at all. For opinions differ scarcely less as to the utility, than as to the justice of each specified mode of taxation. There are quite as many persons who think it expedient as who think it equitable that people should be taxed either equally, or according to any of the suggested schemes of inequality. All the help that Utilitarianism here affords is, as usual, to leave every one to judge for himself which plan is the most advisable, and then to pronounce that to be the only moral plan. Anti-utilitarianism offers guidance of a very different sort. It

[1] 'Utilitarianism,' pp. 86, 87.

wastes no time in seeking for an escape from confusion, for it allows no confusion to exist. It spurns equally the idea of different persons being required to pay different prices for equal quantities of the same thing, merely because some of them can afford to pay more, and that of their being all required to pay the same price for different quantities, merely because all are equally in need of the quantities they respectively obtain. It recognises only an imperfect analogy between a club or a mess to which no one need subscribe unless he likes, and a national community to whose funds every resident within its territory has no choice but to contribute; and while quite content that members of the one should be assessed at any rates to which they have spontaneously consented, it protests against the imposition on members of the other of burdens disproportioned to their several abilities. It denies that the shilling of a man who has but one in the world is of the same value to him because it is his all, as is to another an estate bringing him in 100,000*l.* a year, seeing that, if the former had his pocket picked, he might presently beg, borrow, or earn a second coin, whereas if the latter were dispossessed of his estate he might live to the age of Methusaleh without acquiring its equivalent. It perceives that a rich man, by receiving public protection for his property as well as his person, is relieved from an expense in maintaining private watchmen, which a poor man, with nothing but his carcass to defend, would have as little occasion as ability to incur; and it concludes that more being thus in effect given to the rich, more is due from him in return, and more, consequently, may be rightfully exacted.

We come, now, to a case that may well give to both

Utilitarians and Anti-utilitarians pause—with this difference, however, that whereas it brings the former to an everlasting standstill, the latter may, after a while, go on complacently meditative, at least, if not rejoicing.

There are certain situations in which justice loses its authority. 'Thus, to save a life, it may be allowable . . . to steal or take by force the necessary food or medicine, or kidnap and compel to officiate the only qualified medical practitioner.'[1] Wherefore, since to steal or to kidnap is essentially wrong, it may sometimes be allowable to do wrong. Mr. Mill's explanation of the paradox is, that 'there are particular cases in which some other social duty is so important as to overrule any one of the general maxims of justice; but that in such cases we usually say, not that justice must give way to some other moral principle, but that what is just in ordinary cases is, by reason of that other principle, not just in the particular case.'[2] I submit, however, that there is no real occasion to resort to any such 'useful accommodation of language,' in order to be 'saved from the necessity of admitting that there may be laudable injustice.' Let us never shrink from looking error in the face, for fear that, after she has slunk away abashed, some insoluble mystery may remain behind. It is better, at any rate, to be puzzled than deceived. There can be no doubt about theft being essentially unjust, and no skill in the arrangement of words can convert injustice into justice, or prevent injustice from being wrong. But when, as occasionally happens, the only choice open to us is between two immoral courses, it is morally incumbent on us to select the less immoral of the two. The wrong we decide upon does not, however, itself become smaller

[1] 'Utilitarianism,' p. 94. [2] Ibid. pp. 94, 95.

because it prevents a larger. A sworn bravo, who had taken in advance the wages of assassination, would sin less by breaking than by keeping faith with his employer; but, in either case, would sin. Abstinence from murder would not absolve him from the guilt of perjury. If, unless a loaf were stolen, a life would be lost, Anti-utilitarianism might pardon, but would scarcely applaud the theft. At all events it would not, like the rival doctrine in a similar strait, be reduced to double on itself, declaring that wrong had become right and black white, that the Ethiopian had changed his skin and the leopard his spots. It would still insist as positively as ever that to steal another man's bread cannot be just, however benevolent the purpose for which it is stolen.

One more illustration and I have done. Whoever believes as I do in the indefeasible sanctity of honestly acquired *movcable* property, is logically bound to hold equally sacred the rights of bequest and inheritance. With whatever is exclusively your own, you may surely do anything you please except harm; nor need even harm be excepted if it be done to yourself alone. If, indeed, you go the length of playing ducks and drakes with gold pieces, or of lighting cigars with bank-notes, you are likely enough to be stopped and placed under restraint as a lunatic, but it is clear that this will be done solely because you are presumed not to understand what you are doing, and not from any question as to your right to do it if you do understand, for there are plenty of things far more objectionable in themselves, only not implying a want of sanity, which you will be left perfectly at liberty to do. If you choose, in imitation of Cleopatra, to spoil your fish-sauce by mixing powdered pearls with it, or, in imitation of

a certain Peruvian viceroy, to shoe your carriage horses with silver, no one will dream of interfering with you ; any more than of preventing courtesans and other fine ladies from befouling their nether limbs by sweeping the dusty road with flounces of Brussels lace ; or of preventing members of the Cobden Club from gorging themselves annually, at a cost of five guineas per paunch, in honour of the prince of practical economists. But property, which, however great the good it is capable of doing, you are at liberty to employ solely for your own hurt, you are, of course, at liberty to destroy, thereby preventing it, at least, from doing any more harm. The lesser right of abuse is plainly comprehended in the larger. And of that which is so absolutely your own that you may, if you please, wantonly waste or destroy it, you may, of course, transfer the ownership, thereby conveying to another person all your rights in it, and rendering it as unjust to interfere with the new owner's disposal of the property, as it would previously have been to interfere with yours. Moreover, since the gift is a purely voluntary act, you may, if you please, without impairing its validity, arrange that it shall begin to take effect from some future date instead of immediately ; so that, by naming some date subsequent to your own decease, you will be converting the gift into an equally valid bequest. This, I submit, is decisive as to the iniquity of any legal limitation of testamentary power. The right of bequest is comprehended within and rests upon the same basis as the right of possession, so that, unless it would be just to pass a law depriving all persons of any property possessed by them in excess of a given amount, it would not be just to deprive them by law of the power of bequeathing the surplus.

The rights of inheritance obviously coincide precisely with those of bequest. Just so much as the testator parts with the legatee obtains. When the bequest is unconditional, the new owner whom it creates steps into the precise position which the previous owner has vacated. Often, however, a legacy is qualified by conditions, and, among others, by this, that the property bequeathed shall be held in trust for certain purposes. Now, if these purposes be socially noxious, society need not hesitate to set aside the will that has provided for them. Quite justifiably, society might annul the testamentary endowment of a hospital for fleas and lice, such as Bishop Heber, in his Indian tour, found existing at Baroach and at Surat, because those particular insect pests could scarcely be retained within the walls of their infirmary. Perhaps, too, society might be justified in similarly preventing the endowment of a hospital for superannuated dogs and cats; whether it would or not depending mainly on the awkward question whether such inferior animals have any rights inconsistent with human interests. Be this as it may, however, where human interests alone are concerned, the rights of conditional heirship present no ethical difficulty. When it is for purposes socially innocuous and affecting human beings alone that property is left in trust, it cannot be equitably diverted from those purposes without the consent of all the individuals whom the testamentary arrangements were intended to affect. It matters not how whimsical or preposterous the object enjoined may be; not even though it be a periodical dinner, cooked after the manner of the ancients, like the nauseous one at which Peregrine Pickle assisted; or instruction in alchemy or in Hindoo astronomy, or in the art of walking on one's head. Not until

there remain no persons at once entitled under the will, and also wishing to partake of the banquet or the instruction, can one or the other be equitably discontinued? As long as there are any such persons left, to stop, without their consent and without adequately compensating them, arrangements, rights in which have been vested in them by bequest, would be as palpable a violation of justice as to pick their pockets of sums equivalent to their several interests, real or supposed, in the arrangements.

If scrupulous adherence to the principle thus laid down would heavily shackle the activity and seriously impair the immediate usefulness of Mr. Forster and his coadjutors in the Endowed School Commission, I am exceedingly sorry, but not in the least shaken in my conviction that the principle ought to be rigidly adhered to. If parochial or other communities are too stupid or too selfish to consent that school endowments under their charge shall be applied to purposes of more extensive utility than the founders contemplated, every effort should be made to persuade or to shame them into consenting, but without their consent the thing should on no account be done. On this point Utilitarianism and Anti-utilitarianism would, I apprehend, give identical counsel, the former condemning as impolitic what the latter denounced as unjust. The cause of national education would be ill served by any course calculated to discourage its future endowment by private testators, and nothing would be more likely to have that effect than arbitrary interference with the endowments of former testators.

The courteous reader may now be temporarily released, with fitting acknowledgment of his exemplary patience. It would be cruel to detain him with a recapitulation, with-

out which he may readily trace for himself, in what has gone before, the outlines of a consistent body of anti-utilitarian ethics. In these there is little new, little that has not been anticipated by many an old-fashioned saw and antiquated apothegm—such as, *Fiat justitia ruat cælum*, 'Be just before you are generous,' and, I would fain add, 'Honesty is the best policy'—save that to that Utilitarianism may fairly lay equal claim. My modest ambition throughout this essay has been to vindicate some of the most momentous of primeval truths from the slights to which philosophy—not modern, indeed, but modernised and refurbished—is continually subjecting them, and I will not deny that I have modest assurance enough to believe that I have at least partially succeeded. I think I have shown that there are such things as abstract right and wrong, resting not on fancied intuition, but on a solidly rational basis, and supporting in turn abstract justice, whose guidance, whoever accepts it, will find to be as sure and as adequate as any that unassisted reason is capable of supplying. Anti-utilitarian justice never tries to look half-a-dozen different ways at once, never points at the same time in opposite directions, never issues contradictory mandates, never halts between two opinions. Her votaries, like other mortals, may often be in doubt as to accomplished facts; but, provided these be clear, their course is in general equally clear; there seldom remains aught to embarrass them. If they sincerely desire to ascertain what is due from them, they can seldom err, except on the right side, and they will never dream of disputing that whatever is due from them it must be their duty to do, without respect of consequences. These they will leave to the supreme controller of events, if they

believe in one, and will leave to take their chance, if they do not so believe, feeling all the more certain in the latter case that to control events cannot, at any rate, be within their power. They never stop to calculate how much good may perhaps ensue if evil be done. Simple arithmetic, apart from faith, satisfies them that to add wrong to wrong cannot possibly augment the sum total of right. The prime article of their creed is the absolute obligation of paying debts—a piece of unworldly wisdom more than ever now to Jews a stumbling-block, and to Greeks foolishness, but not the less to all, whether Jews or Gentiles, who will accept it, a light to show through the mazes of life, a path so plainly marked that the foolishest of wayfaring men cannot greatly err therein.

CHAPTER II.

HISTORY'S SCIENTIFIC PRETENSIONS.

Warwick. There is a history in all men's lives,
Figuring the nature of the times deceased;
The which observed, a man may prophesy,
With a near aim, of the main chance of things
As yet not come to life, which in their seeds,
And weak beginnings, lie intreasured.
Such things become the hatch and brood of time;
And, by the necessary form of this,
King Richard might create a perfect guess,
That great Northumberland, then false to him,
Would, of that seed, grow to a greater falseness,
Which should not find a ground to root upon,
Unless on you.
King Henry. Are these things, then, necessities?
King Henry IV. Part II. Act. 3, Sc. 1.

WHEN equally competent thinkers appear to take directly opposite views of a matter of purely speculative interest, it will commonly be found that their differences arise from their using the same words in different senses, or from their being, by some other cause, prevented from thoroughly apprehending each other's meaning. An illustration is afforded by the controversy regarding the possibility of constructing a Science of History, which could scarcely have been so much prolonged if all who have taken part in it had begun by defining their terms, had agreed to and adhered to the same definitions, and had always kept steadily in view the points really in debate. If the word 'science' had been used only in the restricted, though rather inaccurate sense in which it is sometimes employed by some of the most distinguished of the disputants, there would

have been less question as to its applicability to history. No one doubts that from an extensive historical survey may be drawn large general deductions on which reasonable expectations may be founded. No one denies that the experience of the past may teach lessons of political wisdom for the guidance of the future. If it were not so, history would be as uninstructive as fairy lore; its chief use would be to amuse the fancy; and little more practical advantage could result from investigating the causes of the failure of James II.'s designs on civil and religious liberty, than from an inquiry into the artifices by which Jack-the-Giant-killer contrived to escape the maw of the monsters against whom he had pitted himself. What is commonly understood, however, by a Science of History is something far beyond the idea entertained of it by such temperate reasoners as Mr. John Stuart Mill and Mr. Fitzjames Stephen. The science, for the reality of which M. Comte in France and Mr. Buckle in England have been the foremost champions, would bear the same relation to political events as Optics and Astronomy do to the phenomena of light and of the solar and sidereal systems. It would deal less with the conjectural and probable than with the predicable and positive. 'In the moral as in the physical world,' say its leading advocates, 'are invariable rule, inevitable sequence, undeviating regularity,' constituting 'one vast scheme of universal order.' 'The actions of men, and therefore of societies, are governed by fixed eternal laws,' which 'assign to every man his place in the necessary chain of being,' and 'allow him no choice as to what that place shall be.' One such law is that, 'in a given state of society, a certain number of persons must put an end to their own lives:' another, that a certain number of persons must commit

murder; a third, that when wages and prices are at certain points, a certain number of marriages must annually take place, 'the number being determined not by the temper and wishes of individuals, but by large general facts, over which individuals can exercise no authority.' These are general laws; but the special question as to who shall commit the crimes or the indiscretion enjoined by them, 'depends upon special laws, which, however, in their total action must obey the large social law to which they are all subordinate.' A Science of History would consist of a collection of 'social laws,' duly systematised and codified, by the application of which to given states of society the historical student might predict the future course of political events, with a confidence similar to that with which he could foretell the results of familiar chemical combinations, or the movement of the planets.[1]

This is the theory which a few years ago was so much discussed, and against which, notwithstanding the singular fascination it evidently possesses for some minds, the moral sense of a much larger number indignantly revolts, rightly apprehending that its establishment would be subversive of all morality. For, if the actions of men are governed by 'eternal and immutable laws,' men cannot be free agents; and where there is not free agency there cannot be moral responsibility. Nor are the apprehensions entertained on this score to be allayed by the answer, ingenious as it is, which has been given to them[2] by one of the ablest and most judicious apologists for the new creed. It is true that human actions can be said to be 'governed' only in the same metaphorical sense as that in which we speak of

[1] Mr. Buckle's first chapter, *passim*.

[2] 'Cornhill Magazine,' for June and July, 1861.

the laws of nature, which do not really govern anything, but merely describe the invariable order in which natural phenomena have been observed to occur. It is true that the discovery of invariable regularity in human affairs, supposing such a discovery to have been made, would not prove that there was any necessity for such regularity. It is conceivable that the orbs of heaven may be intelligent beings, possessing full power to change or to arrest their own course, and moving constantly in the same orbits merely because it pleases them to do so. Invariable regularity, therefore, would be perfectly consistent with free agency. All this is perfectly just, but it is also altogether beside the question. The offence given by the writers on whose behalf the apology is set up consists not so much in their asserting that there are, as in their insisting that there must be, uniformity and regularity in human affairs; or, as Mr. Buckle expresses it, that social phenomena 'are the results of large and general causes which, working on the aggregate of society, *must* produce certain consequences, without regard to the volition of the particular men of whom the society is composed.' Now, though free agency may co-exist with *invariable* regularity, it obviously cannot co-exist with *necessary* regularity, which, consequently, is incompatible likewise with moral responsibility. If men are compelled by the force of circumstances, or by any force, to move only in one direction, they cannot be responsible for not moving in a different direction. Nor is it more to the purpose to undertake a subtle analysis of the nature of causation, and to explain that it does not, properly speaking, involve compulsion, but simply means invariable antecedence. Let it be that a cannon-ball does not really knock down the wall against which it strikes,

and that it would be more correct to say that the ball impinges and the wall falls; though, seeing that the wall would not have fallen unless the ball had impinged, the distinction is too nice for ordinary apprehension. As understood, at any rate, by the joint headmasters of the new school, causation does involve compulsion. 'Men's actions,' say they, 'are the product not of their volition, but of their antecedents,' and 'result from large and general causes which must produce certain consequences.' Neither, if this be so, is it of any avail to suggest that, possibly, the large and general causes in question may be of only temporary operation. 'It may be that the rules,' in accordance with which the sun has hitherto risen every morning since the creation of the world, 'will hold good only for a time.' It may be that the springs, whatever they are, by which the universe is kept in motion, may require to be periodically wound up like the works of a clock, and that, unless this be done, 'on some particular day out of many billions,' the sun may fail to rise, just as the clock, if suffered to run down, would stop on the eighth day. The conjecture would, of course, be not less applicable to social than to natural laws. It is conceivable that the large general causes assumed to regulate human actions might lose their efficacy at the end of a certain cycle, when mankind might either have to recommence a social revolution similar to the one just completed, or might have to begin an entirely different revolution under entirely different laws. Be it so. Still, if the causes, as long as they remained in operation, possessed a compulsory character—if, during the continuance of the supposed cycle, men were bound to act in a certain way in accordance with certain laws, and irrespectively of their own volition—what would it matter that those laws were

not eternal and immutable? For the time being men would no more be free agents than the hands of a clock, while the clock was wound up. Both would be constrained to move in a prescribed direction, whether they would or no. Men in such circumstances might well be likened, as by Mr. Buckle they are likened, to links in a chain, but few would be prevented from joining in Mr. Goldwin Smith's eloquent protest against the comparison, by being told that the chain perhaps was not an endless one.

It is clear, then, that the principles to which we have been adverting would, if established, be really subversive of morality, inasmuch as they are incompatible with free agency, without which there can be no responsibility. The soundness of a doctrine does not, however, depend upon its tendencies; and Mr. Buckle was fully warranted in demanding that his views should be examined with reference, not at all to their consequences, but solely and exclusively to their truth. They certainly ought to be so examined, if examined at all; but morality is so indispensable to the happiness of mankind, that if there were reason for apprehending it to be based upon error, there would be equal reason for avoiding an enquiry which might demonstrate the weakness of its foundations, by bringing forward an antagonistic truth. The only adequate excuse, therefore, for enquiring, as I now proceed to do, into the validity of Mr. Buckle's theory, is the confidence I feel that it will be found to contain not recondite, newly-discovered truth, but, at best, only skilfully and curiously-compounded fallacies, which, being dispelled, will leave the foundations of morality as firm and unimpeachable as before.

In order that he might be able to prove the possibility of a Science of History, Mr. Buckle asked no more than

the following concessions: 'That, when we perform an action, we perform it in consequence of some motive or motives; that those motives are the results of some antecedents, and that therefore, if we were acquainted with the whole of the antecedents and with all the laws of their movements, we could with unerring certainty predict the whole of their immediate results.' Now, there is certainly nothing in these demands which may not be unhesitatingly conceded. As there can be no effect without a cause, so there can be no action without a motive: the motive or motives of an action are the product of all the conditions and circumstances among which the agent is placed—which conditions and circumstances, again, must have been brought about by antecedent events. The same circumstances would indeed differently affect persons of different mental constitutions and characters; but the original constitution of a man's mind is itself the product of antecedent events, as is also any subsequent modification of character which it may have undergone. It cannot be denied, then, that men's motives are the results of antecedents. Equally undeniable is it that a knowledge of all the antecedents and of all the laws of their movements would enable us to foresee their results, for this, supposing the laws referred to to have any real existence, is merely equivalent to the self-evident proposition, that if we perceived certain causes and knew exactly how they would act, we should know beforehand what would be their effects. But what if there be no such laws? What if, on the showing of Mr. Buckle himself and of his associates, there neither are nor can be?

The true nature of a scientific law has never been better explained than by the writer already quoted as Mr. Buckle's dexterous apologist. A scientific law is not an ordinance,

but a record. It simply professes to describe the order in which certain phenomena have been observed uniformly to recur. It differs from a legislative enactment, in that the one would be a law although it were never obeyed, whereas the other would cease to be a law if one single exception to its statement could be pointed out. Thus the Act of Parliament enjoining the registration of births, would be equally a law although no births were ever registered; whereas the law, that in a body moving in consequence of pressure the momentum generated is in proportion to the pressure, would entirely forfeit its legal character if, on any one occasion or in any circumstances, momentum were generated in any other proportion. It is essential, then, to the existence of a scientific law that there should be uniformity of phenomena. But in human affairs uniformity is impossible. No doubt, in exactly the same circumstances exactly the same events must happen; but exactly the same aggregation of circumstances cannot possibly be repeated. Such repetition is inconsistent with the very theory, which is based on the assumption that the repetition is continually happening.

'In the moral as well as the physical world' there are, say the exponents of the new theory, not only 'invariable rule' and 'inevitable sequence,' but 'irresistible growth' and 'continual advance.' In other words, things can never be twice in precisely the same condition—never, at least, within the same cycle. It has, indeed, been suggested that there may be in human affairs the same sort of regularity as is observed by the hands of a clock; and that, as the latter, at the end of every twenty-four hours, recommence the movement which they have just concluded, so at the end of, say 'every ten thousand years,' all the same events which

have been happening throughout the period may begin to happen over again in the same order as before. Such a succession, however, would involve quite as much of retrogression as of progression, and the continual advance so boastfully spoken of would be nothing else than a tendency of society to return to the condition from which it had originally emerged. But, even on this uncomfortable hypothesis, there could be no regularity of occurrences within the same cycle; no clue as to the future could be obtained from investigation of the past. On the contrary, the only certainty would then, as now, be that no combination of events which had happened once could happen again, as long as the existing order of things continued. The inference here follows necessarily from the premises. If there be continual advance—if things are constantly moving forward—they cannot remain in the same state; and if not in the same state, they cannot produce the same effects. For, if it be obvious, on the one hand, that precisely the same causes must invariably produce the same results, it is equally evident, on the other, that the same results cannot be reproduced except by the same causes. If causes calculated to bring about certain phenomena undergo either augmentation or diminution, there must be a corresponding change in the phenomena. Now, effects cannot be identical with their causes, and, in the moral world, effects once produced become in turn causes, acting either independently or in conjunction with pre-existing causes. They become in turn the antecedents spoken of by Mr. Buckle, from which spring the motives of human conduct. But, as all such antecedents must necessarily differ from all former antecedents, they must also give rise to motives, must be followed by actions, and must bring about combinations of

circumstances, differing from any previously experienced. Thus, in human affairs, there can be no recurrence either of antecedents or of consequences; and, as a scientific law is simply a record of the uniform recurrence of consequences, it follows that in human affairs there can be no scientific laws.

It will be understood that human conduct, and the circumstances or causes which influence it, are here spoken of in the aggregate. It is not pretended that particular causes or circumstances may not continue permanently in operation, though with an influence modified by the concomitance of fresh circumstances; or that they may not continue to produce consequences differing from their former consequences not more than in proportion to the modification undergone by the causes. Still less is it pretended that certain human phenomena, with which human motives have little or nothing to do, may not be repeated once and again, notwithstanding the important changes constantly going on in every human society. It is not denied that marriages may continue for years together to bear much the same annual proportion to the population, provided that during those years there be no material change in the amount of the economical obstacles which commonly interfere, more than anything else, with men's natural inclination to marry. Still less is it denied that, in a given number of births, the number of girls may always preserve nearly the same superiority over that of boys, or that the proportion beween red-haired and flaxen-haired children may generally be about the same, or that the percentage of letters misdirected in a given country may vary little during long periods. But, in the first of these cases, men do not get married, as Mr. Buckle

imagined, irrespectively of their volition. If, for several years together, marriages continue to bear about the same proportion to population, it is because during that period circumstances continue to present a certain amount, and no more, of opposition to men's connubial proclivities. In the other cases, it is not at all because the parents wish it that a girl is born instead of a boy, or with flaxen hair instead of carrots; neither is it from any motive or intention that letters are often misdirected, but, on the contrary, from want of thought, and from the carelessness and haste with which letter-writing, like most other human actions, is unfortunately too often performed. But, before assuming that this carelessness and haste bear an invariable proportion to numbers, we should inquire whether the proportion of misdirected letters is the same in all human societies—the same, for instance, in France and Spain as in England. If not—if varying circumstances produce different results in this respect in different countries—it may be inferred that a variation of circumstances may produce a difference of result in the same country. It will, at any rate, be clear that there is no 'necessary and invariable order' in which letters are misdirected. In one sense, indeed, it may be said that the proportion of misdirected letters depends upon 'the state of society,' if by that expression be meant, among other things, the numerical proportion which individuals of different characters and habits bear to each other. In that sense, we may accept some far more startling propositions. We may partly admit that the state of society determines the number of murders and suicides, if by this be simply meant that the number of murders and suicides committed will depend upon the number of persons whose characters

have been so moulded by circumstances as to dispose them to put an end to their own or other people's lives. But Mr. Buckle, by whom the assertion was made, was careful to explain that his meaning was the very reverse of what is here supposed. Speaking of suicide, he declares it to be 'a general law that, in a given state of society, a certain number of persons must put an end to their own lives;' adding that 'the question as to who shall commit the crime depends upon special laws,' and that 'the individual felon only carries into effect what is a necessary consequence of preceding circumstances.' In other words, it is not the amount of crime that depends upon the number of persons prepared to commit it; it is the number of criminals which depends upon the amount of crime that must needs be committed. 'Murder,' he elsewhere says, 'is committed with as much regularity, and bears as uniform a relation to certain known circumstances, as do the movements of the tides and the relations of the seasons.' 'The uniform reproduction of crime is more clearly marked, and more capable of being predicted, than are the physical laws connected with the disease and destruction of our bodies. The offences of men are the result not so much of the vices of individual offenders, as of the state of society into which the individuals are thrown.'

There is here so much looseness and inconsistency of language, that what is most offensive in it may easily bear more than one interpretation: and the shocking dogma that, in a given state of society, the force of circumstances constrains the commission of a certain amount of crime, may possibly admit of being explained away and softened down into the comparatively harmless proposition

that, where all the circumstances, conditions or causes required for the commission of a certain amount of crime are present, that amount of crime will certainly be committed. But what is most provoking in Mr. Buckle is the heedlessness or wantonness with which he is constantly insisting that the causes in question are necessarily present and uniformly acting. What he calls the uniform reproduction of crime is likened by him to the uniform recurrence of the tides. According to him, it is a law that a certain number of suicides shall take place annually, just as it is a law that there shall be high and low water twice in every twenty-four hours. Now a law, as the word is here used, means a record of invariable repetitions of phenomena. Has it been observed, then, that suicides bear, we will not say an invariable, but anything like a definite proportion to population? Mr. Buckle thinks it has, and he adduces some facts in support of the opinion; but his facts, properly understood, disprove instead of proving what he asserts; and, even if they proved it, they would yet afford no support to his main theory.

In London, for some years past—how many is not stated—about 240 persons annually have made away with themselves—sometimes a few more, sometimes a few less—the highest number having been 266 in 1846, and the lowest 213 in 1849. But, while the number of suicides has thus been nearly stationary, population has been anything but stationary in the metropolitan district, but has advanced with vast and unremitting strides at an average rate of nearly 43,000 a year. In 1841 it was 1,948,369; in 1851, 2,361,640; and in 1861, 2,803,989. The proportion of suicide to population has consequently been by no means uniform, but has varied exceedingly, and on the

whole has shown a constant tendency to decrease. But even if it had continued uniform, it would simply have shown that, during a certain number of years, the general character of Londoners had, in certain particulars, undergone no material change. It would not have proved that the regularity of suicide observable among Londoners was in accordance with any general law. To prove this it would have been necessary to show that the proportion had been uniform, not only in the same but in all societies; in Paris as well as in London, among the Esquimaux of Labrador, and among the Negroes of Soudan. For, if the proportion were found to vary by reason of the differing circumstances of different societies, it would plainly be seen to be at least susceptible of variation in the same society, inasmuch as in no society do circumstances remain the same from generation to generation. So equally with murders. Even if there were no doubt that the percentage of such crimes in England had long continued the same, still that fact would prove nothing as to the uniform reproduction of crime, if it could be shown that the percentage had ever varied anywhere else—in France or Italy, for example, or in Dahomey. For it would be mere childishness to point to the different conditions of England and Dahomey, and to plead that no more was intended to be said than that, with uniformity of circumstances there would also be uniformity of results. So much no one, in the least competent to discuss the subject, would for a moment dream of disputing. But in political affairs there cannot be uniformity of circumstances. The aggregate of circumstances from which spring human motives cannot, from the nature of things, ever be repeated; and, though a few general causes may continue permanently in operation,

they cannot continue to produce the same identical results ; for even though they could themselves remain stationary, it would be impossible that their operation should not be affected by the constant change going on around, or should not partake of an otherwise universal forward movement. In political affairs there cannot possibly be any recurrence of identical phenomena ; nor can there, except within a very limited period, be any occurrence of very similar phenomena. But recurrence (and not merely recurrence, but complete and invariable recurrence) is the very foundation of science. Without it there can be no scientific laws, and without such laws—*i.e.*, without records of past recurrences—there can be no sure predictions as to the future. It is only because certain motions of certain bodies have hitherto been observed to take place with invariable regularity, that they are expected to continue to do so, and it is upon that assumption only that we venture to predict that the sun will rise to-morrow morning, or that an eclipse will take place next year. But if no event recorded in history has ever yet been known to occur twice under precisely the same conditions, and as a consequence of the same causes, what ground can there be for predicting whether or when any such event will occur again? What possibility is there of constructing a science of history, when history supplies no materials for either foundation or superstructure ?

There is nothing in this conclusion in the slightest degree opposed to the most approved doctrine of causation. No effect can be without a cause. No doubt, then, the regency of invariable causation holds good of human volitions. No doubt the volitions and consequently the actions of men are the joint results of the external circumstances amid which

men are placed, and of their own characters; which again are the results of circumstances, natural and artificial. So much must needs be admitted, and something more besides. Certain causes will infallibly be succeeded by certain effects. From any particular combination of circumstances, certain determinate consequences and no others will result; those again will give rise to consequences equally determinate, and those in turn to others, and so on in an infinite series. It follows, then, from the regency of causation, that there is a determinate course already, as it were, traced out, which human events will certainly follow to the end of time; every step of which course, however remote, might now be foreseen and predicted by adequate, that is to say by infinite, intelligence. Infinite intelligence would do this, however, not by the aid of law, but by virtue of its own intrinsic and unassisted strength, wherewith it would perceive how each succeeding combination of causes would operate. For, as cannot be too often repeated, a law is merely a record of recurrences; and in human affairs there can be no recurrences of the same aggregate either of causes or results. There being then no historic laws, there can be no Science of History, for science cannot exist without laws. The historic prescience, which is an attribute of Infinite Intelligence, not being regulated by law, or at any rate not by any law except that of causation, is not, technically speaking, a science, and even if it were, would be utterly beyond the reach of human intellect and attainable only by Infinite Wisdom.

The admission made in the last paragraph has cleared the way for the introduction of a question, from which the subject under discussion derives its principal interest, and

which it is indispensable therefore carefully, though briefly, to examine. If there be certain determinate lines of conduct which men will infallibly pursue throughout all succeeding generations, how can men be free agents? How —for it is merely the old puzzle over again—how can foreknowledge be reconciled with freewill? The difficulty is not to be got rid of by discrediting the reality of freewill, and treating it as a thing for which there is no evidence. When Johnson silenced Boswell's chatter with the words, 'Sir, we know our will is free and there's an end on't,' he expressed a great truth in language not the less philosophically accurate on account of its colloquial curtness. The consciousness possessed by an agent about to perform an act, that he is at liberty to perform it or not, is really conclusive evidence that the act is free. For it matters not a jot whether consciousness be 'an independent faculty,' or whether—as, Mr. Buckle reminds us, 'is the opinion of some of the ablest thinkers'—it be not merely 'a state or condition of the mind.' If consciousness be a condition of the mind, so also is perception; but perception, whatever else it be, is also that which makes us acquainted with external phenomena, just as consciousness is that which makes us acquainted with internal emotions. The two informants, it is true, are not equally trustworthy. Perception often deceives us, but consciousness, never. We often fancy we perceive what we do not perceive. We may fancy we see a ghost, when we are merely mocked by an optical illusion, or we may mistake the impalpable imagery of the Fata Morgana for solid objects, or the rumbling of a cart for thunder. But consciousness is infallible. We cannot fancy we experience an emotion which we do not experience. We cannot fancy we are glad when we are not

glad, or sorry when we are not sorry, or hopeful when in despair; and to pretend that we can possibly be conscious of willing when we are not willing, would be as absurd as to meet the *cogito, ergo sum* of Descartes, with the reply that, perhaps, we do not really think, but only think we think.

Freewill, then, being an indisputable reality, how can it be reconciled with foreknowledge? There can be no more conclusive way of showing that the two things are capable of co-existing than to point to an example of their actual co-existence, and such an example is afforded by the idea of Infinite Power. Omnipotence, which by its nature implies freewill, comprehends also Omniscience. Omnipotence can do anything whatsoever which does not involve a contradiction; but even Omnipotence can do nothing which Omniscience does not foresee. It can, indeed, do whatsoever it pleases; but Omniscience foresees precisely what it will be pleased to do. With unbounded liberty to choose any course of action, it can yet choose no course which has not been foreseen; but its freedom of choice is evidently not affected by the fact that the choice which it will make is known before hand. Neither is that of man. An eager aspirant to ecclesiastical preferment is not the less at liberty to refuse a proffered mitre, because all his acquaintances have a well founded assurance that he will accept. A wayfarer, with a yawning precipice before his eyes, may or may not, as he pleases, cast himself down headlong. Whether he will do so or not must always have been positively foreknown to Omniscience; but that fact in no degree affects his power of deciding for himself. If arguing on the notion that what is to be must be, he decide on moving forward to his destruction, then what has

been foreseen is simply that he will so argue and be self-deceived, and will consequently perish. But the foreknowledge which simply perceives what direction will be taken by the will is a very different thing from an overruling destiny, which should compel the will to take some special direction. Still it is obvious that, in this instance also, foreknowledge is based entirely on causation. It is solely because human volitions take place as inevitable effects of antecedent causes that Omniscience itself can be conceived as capable of foreseeing them.

But on such conditions, how can human volitions really be free? How can man be really at liberty to will of his good pleasure, if what he is prompted to will depends on the influence which the circumstances that happen to surround him may exercise on the constitution and character, which he has derived from pre-existing circumstances? How can his will be free, if that will be moulded and shaped by circumstances over which he has no control? I have, I am aware, by the mode I have adopted of reconciling free-will with foreknowledge, incurred the obligation of reconciling it with another co-existence of yet greater apparent incompatibility. By admitting that 'human volitions take place as inevitable effects of antecedent causes,' that they must be such, and cannot be other than such, as antecedent causes make them, I have admitted that the will, though independent of law, is absolutely subject to, and *must* implicitly obey, causes. Freewill, then, must be shown to be compatible not with foreknowledge only, but with necessity also. For there is no use in attempting to ignore necessity; no use in exclaiming with Professor Huxley: 'Fact I know, and Law I know; but what is Necessity but an empty shadow of the mind's own

throwing?'[1] A shadow it most certainly is not, though it is a bugbear, and the veriest that was ever suffered to torment a morbid imagination. It is an indisputable reality, a substantial, but at the same time perfectly harmless, or rather salutary reality, whose terrors need only to be boldly confronted in order to disappear and to transform themselves into highly attractive recommendations. For what, after all, does it imply? What but that effects must follow their causes, and causes precede their effects, as plainly they must, unless cause and effect be utterly unmeaning expletives. Of course we must on all occasions be affected by surrounding circumstances, in modes exactly accordant with our idiosyncracies, moral and physical. Of course, too, our volitions must exactly correspond with our contemporaneous affections. When we are empty, we must, if in health, feel hungry, and desire to eat; when full, we must, unless we are hogs, be satisfied, and prefer to ruminate. Most men are so organised that when tickled they must laugh; when wronged, must frown or sigh. The sight of distress makes them pity, and desire to see it relieved. That of virtue makes them admire, and desire to see it rewarded. That of vice makes them angry, and desire to see it punished. Would we have all these things reversed? Would it be well for us that our being starved or surfeited should make no difference in our wish to feed, or our willingness to fast? Should we like the chances to be equal whether we should desire distress to be alleviated or aggravated? If not, what is the bondage under which we groan? what the liberty wherewith we long to be made free? Our sole grievance is that, according to actual arrangements, there must be reasons for our wishes, and that on those

[1] 'Lay Sermons,' p. 158.

reasons our wishes must depend. Should we then prefer that there were no such reasons? Would we have our wishes to be independent of reason, and adrift before irrational caprice? Probably we may, on second thoughts, be content to forego an enfranchisement like this; but, if not, we may at least console ourselves for its indefinite postponement, by reflecting that Omnipotence itself is, equally with ourselves, subject to the sort of necessity under which we are groaning; equally destitute of the sort of free-will to which we aspire. It is manifest that, since there cannot be omnipotence without boundless liberty, omnipotence must possess completest freedom of will. Yet even the Will of Omnipotence is subject to the despotism of causation. Divine perfection cannot but be at all times affected in modes as exactly corresponding with its own excellence as human imperfection is in modes corresponding with its deficiencies, and the movements of the Divine Mind cannot but correspond with the affections of the Divine Mind. Those movements are not unmeaning, purposeless, wayward. They, too, have their appropriate springs, and proceed by regular process from legitimate causes, the chief of those causes being the infinite perfection of the Divine Nature. Divine Power cannot then, any more than human, be directed by its owner's will to purposes against which its owner's nature revolts. But is this inability a matter to lament over? Those must be greatly at a loss for a grievance who make one of its being impossible for them to will things which they have over-ruling reasons for not willing. Besides, does man, in order to believe himself free, require more freedom than his Maker? The disciple is not above his master, nor the servant above

his lord. Surely it is sufficient that the disciple be as his master, and the servant as his lord.[1]

The fact, then, that human conduct is subject to causation, and may by adequate intelligence be predicted in its minutest details until the end of time, no more proves that it is governed by invariable laws, which act irrespectively of human volitions, than the corresponding fact with reference to Divine conduct impairs the freedom of the Divine Will. There is no one living to whom such a doctrine—degrading man, as it does, into a helpless puppet, robbing him of all moral responsibility and of every motive for either exertion or self-control—can be more utterly repugnant than to Mr. Mill, who nevertheless, although dissenting from Mr. Buckle's more extreme opinions, makes use of some expressions which may be construed into a qualified approval of his general views. Even Mr. Mill speaks of 'human volitions as depending on scientific laws,' thereby implying that the circumstances from which human motives and, consequently, human actions result are continually recurring with a certain regularity. He speaks of

[1] A highly esteemed literary friend, who has done me the favour of looking over these pages in manuscript, considers that what I have proved is, not that Omnipotence involves the co-existence of Freewill and Necessity, but that Omnipotence itself, although capable of possessing all things, could not possess Freewill, and that consequently Freewill cannot possibly exist—that there cannot possibly be any such thing.

Although, for reasons stated four pages back, not myself prepared to accept this view of the matter, I should cheerfully accept it if I could. The argument in the text proceeds upon the assumption that people mean something when they talk about Freewill. If, however, they have no meaning, if the phrase be a simple sound signifying nothing, of course all controversy regarding the possible co-existence of that nothing with Necessity is settled at once and for ever, while no great amount of philosophy will be requisite to induce mankind to resign themselves very placidly to the absence of that same nothing.

'general laws affecting communities, which are indeed modified in their action by special causes affecting individuals, but which, if their effects could be observed over a field sufficiently wide and for a period sufficiently long to embrace all possible combinations of the special causes, would be found to produce constant results.'[1] This proposition seems to proceed on the assumption that general causes are either of uniform operation, or that, if they vary in their effects, their variations, and also those of special causes, occur with a certain regularity, and constantly recur within a certain definite period. But this is precisely what cannot possibly happen. Among the general causes referred to, some few are continuous—those, namely, which are inherent in human nature; but even these are continually modified in their action by changes continually taking place in those other general causes which constitute the existing state of society, and which are not merely continually changing, but are continually becoming more and more different from what they were originally. So much is fully admitted by Mr. Mill himself, and indeed can be scarcely more strongly enforced than by his own words. 'There is a progressive change,' he says, 'both in the character of the human race, and in their outward circumstances, so far as moulded by themselves; in each successive age the principal phenomena of society are different from what they were in the age preceding, and still more different from any previous age.'[2] It is admitted, then, that there can be no recurrence of social phenomena; and it is obvious that, the longer the period of observation, the less possibility can there be of their recurring, since the

[1] Mill's 'Logic.' Fifth edition. Vol. ii. p. 527.
[2] Mill's 'Logic,' vol. ii. p. 504.

greater is the certainty that new causes will come into operation. But, even though it were possible that all the external circumstances which have once influenced either communities or individuals could be repeated, the same circumstances could not a second time produce the same effects. Men of different characters are affected in very different ways by the same influences, and the characters of any particular generation of men are always very different from those of every preceding generation. Let it be supposed, for the sake of argument, that the French of the present day could be placed in precisely the same social condition in which their fathers were towards the close of the last century; still they would act very differently from their fathers. Nay, even though they should, with one single exception, have inherited the dispositions of their fathers, the difference of character in one single individual might suffice to give an entirely new turn to the course of events. If every other antecedent of the first French Revolution were again present, still there might be no second revolution, provided only that, instead of another Louis the Sixteenth, a Leopold of Belgium, or a Frederick the Great were king.[1] With the last mentioned on the throne, there would assuredly be no repetition of that vacillation of purpose which rocked the cradle and fostered the growth of popular fury till it culminated in a Reign of Terror. Since, then, there cannot be either a repetition of the same circumstances to act upon men, or a reproduction

[1] 'S'il se fût trouvé alors (vers 1750) sur le trône un prince de la taille et de l'humeur du Grand Frédéric, je ne doute point qu'il n'eût accompli dans la société et dans le gouvernement plusieurs des plus grands changements que la Révolution y a faits, non-seulement sans perdre sa couronne, mais en augmentant beaucoup son pouvoir.'—De Tocqueville, *L'Ancien Régime*, p. 274.

of the same sort of men to be acted upon by circumstances, human conduct can never exhibit a repetition of the same phenomena; experience of the past can never, in social or political affairs, furnish a formula for predictions as to the future. Accordingly Mr. Mill, in common with Mr. Stephen, disclaims the idea of positive, and pleads only for conditional, predictions. But the very term 'conditional predictions' involves a contradiction, since it is obviously impossible to see beforehand what perhaps may never come to pass. What is meant by the phrase is really nothing more than conjectures; and conjectures, however ingenious and reasonable, cannot be admitted within the pale of science. They cannot be accepted as fruits of a tree which has by the quality of its fruits proved its right to be entitled the Science of History.

With the view of enhancing the value of conditional predictions, it has been urged that they are of precisely the same description as those which we are in the habit of hazarding with respect to our familiar acquaintance. There are, it is said, 'general maxims regarding human conduct, by the application of which to given states of fact, predictions may be made as to what will happen;' and all that is necessary for the construction of historical science, is the employment of these maxims on a larger scale. If the premiss here be sound, the inference may be owned to be sufficiently legitimate. If there be any formula with which the actions of individuals are observed to correspond, there is every likelihood that the same formula may, by extension and amplification, be adapted to the actions of communities. But, although there are plenty of maxims telling men what they *ought* to do, there is not one—except that which declares that they must all die—which affords any positive

information as to what they *will* do. 'Thou shalt not steal,' 'thou shalt not kill,' 'thou shalt not commit adultery;' —all these and many more are moral laws; but of not one of them—the more's the pity—is the observance sufficiently regular, to give it the smallest pretension to be styled a scientific law. General propositions, too, there are in abundance, representing with more or less accuracy the probable results of particular lines of conduct. Such are the proverbial sayings, that 'Honesty is the best policy,' that 'A rolling stone gathers no moss,' that 'The racecourse is the road to ruin.' But adages like these were never supposed to afford any basis for prophecy. It may be that an honest man more commonly gets on in the world than a knave, though there is also much to be said on behalf of the counter-proposition, that 'The children of darkness are wiser in their generation than the children of light;' but, at any rate, there is no doubt that a man may be honest without being prosperous, and that he is often all the poorer for his probity. But, indeed, is there any one conceivable situation in life in which a positive rule can be laid down as to the course which men will follow? Can it even—to make use of an illustration which has been very effectively employed on the other side—can it even be said that a man will certainly marry a woman with whom he is deeply in love, who returns his affection, whom he can marry if he likes, and whom he has the means of maintaining in a suitable manner? Nine times out of ten he probably will; but in the tenth instance a Brahmin's passion may be checked by fear of contamination with a Pariah, or a King Cophetua's pride may prevent his wedding a beggar-maid, or the titled owner of an entailed estate may decline to illegitimatise his offspring by espousing his deceased wife's sister, or betrothed

lovers may be parted by some such mysterious barrier as sprang up between Talbot Bulstrode and Aurora Floyd, or an Adam Bede, in spite of the example set by George Eliot's hero, may refrain from marrying Dinah for fear of breaking his brother Seth's heart.

Equally vain would be the search for any rule invariably applicable to political affairs. Even general propositions which sound like truisms are not universally true. It cannot even be said that misgovernment always produces discontent, or that the combination of superior strength and superior strategy is always successful in war; for examples might be cited of nations remaining patient under an iron despotism, and perhaps also of campaigns lost by armies with every advantage of skill, numbers, and discipline on their side. No better specimen can be given of what are popularly spoken of as historical laws than one propounded by Mr. C. Merivale, whose careful study of Roman annals has taught him to regard it as 'a condition of permanent dominion that conquerors should absorb the conquered gradually into their own body, by extending, as circumstances arise, a share in their own exclusive privileges to the masses from whom they have torn their original independence.' The principle thus laid down is of great value, but it must not be mistaken for an index pointing unerringly to a goal which will certainly be obtained by following its direction. At least the offer of Austrian citizenship had no perceptible effect in overcoming the exclusiveness of Hungarian nationality; nor in inducing Venetia to become a willing member of a Teutonic Federation, and to lend the same assistance to the House of Hapsburg, as Gaul and Spain did to the Cæsars, in suppressing insurrection on the banks of the Danube. History supplies many principles similar to the

one evolved by Mr. Merivale, all more or less useful for the guidance of the statesman. So far as they are just, they indicate the results which would spring from the adoption of certain lines of policy, unless something unforeseen should happen. It is true that something unforeseen is almost sure to happen and to divert or impede the course which events would otherwise take; but still, it is most important to be able to perceive clearly the influence exerted by certain causes, how much soever that influence may be disturbed by other causes; since, if it does nothing else, it will at least prevent the disturbing causes from producing what would otherwise have been their full effect. On principles which indicate only a few out of many causes in simultaneous operation, it is evident that nothing deserving to be called predictions can be founded; but from them, nevertheless—inasmuch as they teach that some causes act for good and others for evil, as far as their action extends—practical rules of government may be deduced. Such rules, however, which at best can only furnish a loose and shifting basis for doubtful conjectures, stand without the confines of positive knowledge; they occupy a middle-ground between science and nescience, and constitute what, until very lately, was thought to be designated with sufficient distinctness as the 'Philosophy of History.' By that term, Mr. Stephen in one place says, is really meant all that he ever meant by the Science of History; and the observation, were it not apparently inconsistent with his general reasoning, might seem to imply that the only question between him and his opponents is whether a thing, the existence of which is not disputed, ought or ought not to receive a new appellation. But it is otherwise, at any rate, with Mr. Mill. The language used by him on this as on

all other subjects, is too clear and precise to admit of its being supposed that he has used a new phrase without attaching to it a new signification, or to permit the present writer to believe, as he fain would do, that a point of nomenclature is the only point of difference between himself and one from whom it is so difficult to differ without diffidence and self-distrust.

CHAPTER III.

DAVID HUME AS A METAPHYSICIAN.

But the mischief lieth here; that when men of less leisure see them who are supposed to have spent their whole time in the pursuit of knowledge professing an entire ignorance of all things, or advancing such notions as are repugnant to plain and commonly received principles, they will be tempted to entertain suspicions concerning the most important truths which they had hitherto held sacred and unquestionable.—Berkeley's *Hylas and Philonous*.

IN no department of science is it possible for an enquirer to advance considerably beyond all his predecessors without serving as a light by whose aid his successors may advance somewhat beyond him. This is the only apology that I feel disposed to offer for the freedom with which I am about to criticize one who, having been, by judges so competent as Adam Smith and Professor Huxley, pronounced to be 'by far the greatest philosopher' and 'acutest thinker' of his own age, would, doubtless, be at least on a level with the greatest philosophers of the present age if he were living now. The veriest cripple that can manage to sit on horseback may contrive to crawl some few steps beyond the utmost point to which his steed has borne him, and, if those steps be uphill, may, by looking back on the course he has come, perceive where the animal has deviated from the right road. Yet he does not on that account suppose that his own locomotive power is in any respect to be compared to his horse's; neither need an annotator on Hume, when pointing to holes in his author's metaphysical coat, be supposed not to be perfectly aware that it is the strength,

not of his own eyes, but of the spectacles furnished to him by his author, that enables him to perceive them.

The concentrated essence of Hume's metaphysics is to be found in 'An Enquiry concerning Human Understanding,' forming part of a volume of Essays which Hume published somewhat late in life, and which he desired might 'alone be regarded as containing his philosophical sentiments and principles.' To a formal, though necessarily rapid, examination of the results of this 'Enquiry,' the present chapter will be almost exclusively devoted. Often as the operation has been performed already, there are two reasons why its repetition here may not be without utility: for, first, its subject is a treatise containing the germs of much subsequent and still current speculation which, in so far as it is merely a development of those germs, cannot but be infected by whatever unsoundness may be inherent in them; and, secondly, because the subject, hackneyed as it may seem, is so far from being exhausted, that there is scarcely one among the doctrines embodied in it to which, as I proceed at once to show, fresh objection, more or less grave, may not be taken by a fresh investigator.

To begin very near indeed to the beginning, let us take, first, the section of the 'Enquiry' which treats of the 'Origin of Ideas.' All the perceptions of the mind may, according to Hume, be divided into two classes, whereof the one consists of all those 'more lively perceptions,' termed by him indifferently Impressions or Sensations, which we experience when we 'hear, or see, or feel, or love, or hate, or desire, or will:' the other, of those 'less lively perceptions of which we are conscious when we reflect on any of the sensations above-mentioned,' and which are commonly denominated

thoughts or ideas. 'All our ideas or more feeble perceptions,' he continues, 'are copies of our impressions or more lively ones,' the 'entire creative power of the mind amounting to no more than the faculty of compounding, transposing, augmenting, or diminishing the materials afforded by the senses and experience.' So confident is he of the literal accuracy of this statement, as to proceed to intimate that whenever we find in conversation or argument 'a philosophical term employed seemingly without any idea or meaning,' we have only to enquire from what impression its idea, if it have one, is derived, when, if no impression can be adduced, we may be sure that no idea is present either. The only phenomenon opposed to this rule, which he professes himself able to think of, is that of a person who, of a colour—as, for instance, blue—with which he is familiar, is able to conceive a shade somewhat different from any of the shades which he has actually seen; but this instance he disregards as too singular to affect the general maxim, to which, as he might have added, it is not really an exception, any more than would be the power of a person who had never seen a mountain higher than Snowdon or Mont Blanc to conceive one as high as Chimborazo or Mount Everest, for, equally in both cases, the ideas are copies of sensible impressions, although of complex, not simple, ones—of colour and graduation in the first case, of size and increase in the second. Still, there is at least one genuine exception, which it is the more remarkable that Hume should have overlooked, as it may be said to have stared him in the face from the very subject-matter he was considering. Our idea of idea itself, from what sensible impression is that derived? We have just been told that the difference between an idea and a sensation is

that the first is a copy of the second, a feeble copy of a lively original. The idea therefore is not itself a sensation; the copy is not itself an original. Neither consequently can the idea or notion which the mind proceeds to form of any of its previous ideas be derived from or be a copy of a sensation: it cannot have entered the mind 'in the only manner by which,' according to Hume, 'an idea can have access to the mind, to wit, by actual feeling and sensation.'

Let me not be misunderstood. Let me not be supposed to be courting collision with the Berkleian thesis of the non-existence of abstract ideas. I do not for one moment doubt that all our general or class notions of sensible objects or events are merely concrete ideas of individual objects or events—that, for instance, whenever we talk of man or motion in general, we are really thinking of some particular man or motion, which, as possessing all properties common to all men or motions, serves as a representative of the entire *genus*. Neither am I prepared to deny, although scarcely either prepared to admit, that even of abstract qualities all our general or class notions are equally ideas of particular specimens of those qualities; that, when we speak, for instance, of virtue or vice in general, we are thinking of some particular exhibition of some particular kind of virtue or vice. Nay, I am not even concerned to deny that our idea of idea in general may possibly be a copy of some particular one of our previous ideas which, for the nonce, serves to represent all our other previous ideas. I limit myself to saying that our idea of idea in general, whether it be or be not itself an abstraction, is, at all events, not a copy of sensation. I admit that it thereby differs essentially from most, if not all, other general ideas. Possibly it may be only through my having

myself felt the promptings of some particular virtue or vice, that I am able to form an idea of that particular virtue or vice. If so, I admit that my idea of that particular virtue or vice is but, as Hume would say, a copy of my feeling. And since, undoubtedly, I can feel myself thinking, or perceiving, or performing any other mental operation, I am bound to admit, further, that my idea of any such operation may equally be described as a copy of a sensation which I have experienced. All I contend for is that if, after having formed my idea, either of a mental operation or of anything else whatever, I proceed to ask myself what sort of an entity that idea is, the answer which I give myself, or, in other words, the idea which I form of my previous idea, being a copy of idea, cannot be a copy of sensation.

So much must surely be conceded to me, for that white, being white, cannot be also black is not nearly so certain as that idea and sensation, being two distinct things, idea of idea cannot be idea of sensation. The concession, indeed, is likely enough to be accompanied by an exclamation of wonder that so microscopic a flaw in an elaborate exposition should be thought worth pointing out; but Hume himself would certainly not have so retorted. Of the doctrine which I am impugning, viz., that every *idea* is copied from some preceding *sensation*, he had spoken as follows:—'Those who would assert that this position is not universally true, nor without exception, have only one, and that an easy, method of refuting it, by producing the idea which, in their opinion, is not derived from this source. It will then be incumbent on us, if we would maintain our doctrine, to produce the impression or lively perception which corresponds to it.' He was much too candid not to

have acknowledged that this challenge of his had been fairly and fully met. He was not a man to refuse to own himself refuted when, after distinctly intimating that the production of one single idea, having no perception correspondent to it amongst those which we experience 'when we see, or hear, or feel, or love, or hate, or will, or desire,' would suffice for his entire refutation, he found such an idea produced. He knew too well also to what enormous errors of thought minute errors of expression may lead, to disregard any speck of inaccuracy in any one of his definitions. The apparently slight oversight committed by him on this occasion will, indeed, be presently seen to have sensibly contributed to lead him subsequently into a mistake of no small practical moment.

We come next to the 'Association of Ideas,' the influence of which almost all of Hume's successors, as well as himself, seem to me to have greatly over-rated. That there is a 'principle of connection between the different thoughts or ideas of the mind' is, as he says, sufficiently evident; and that this principle is, as he was apparently the first to remark, threefold, deriving its efficacy from resemblance, contiguity in time or place, and cause or effect, may also be admitted with little qualification. But I presume to think that he is quite incorrect in adding that, in virtue of the aforesaid principle, ideas 'introduce each other with a certain degree of method or regularity.' You are walking, let us suppose, through Hyde Park, thinking of nothing more particular than that the morning is a pleasant one, when you suddenly find yourself in imagination pacing the shore of the Dead Sea, and, pausing to ask yourself how you got there, you discover, perhaps, that it was by the following steps. Remarking some landscape effect in the

distance, you were reminded of a similar one which you had remarked years before while taking a walk fifty miles off in Sussex. Here resemblance operated. Then you recollected how during that walk you were thinking about Mr. Buckle, whose lucubrations you had been conning over before starting. Here entered contiguity both of time and space. The name of Buckle reminded you how that promising writer ended his travels abroad by dying of a fever which he caught while sailing over the sites of the engulphed cities of the plain. Here cause and effect came into action; and, so far, everything accords with Hume's theory. But if you repeat the same walk to-morrow, the same landscape effect will almost certainly suggest a train of ideas quite different from that of to-day. Perhaps it may begin by reminding you of landscape effects in general; then of Mr. Ruskin, who has discoursed so eloquently on that topic, and next of Mr. Ruskin's 'Stones of Venice,' from whence it is equal chances whether your thoughts radiate, on one side of the compass, to stone china, or Stoney Stratford, or Stonewall Jackson, or, on the other, to the 'Venetian Bracelet,' L. E. L. and Fernando Po, or to that effective adaptation of the Venetian style of architecture, the Railway Station at St. Pancras, and thence to some town or other on the Midland Line.

These examples will be readily recognized as fair average specimens of those unpremeditated trains of thought with which we are all familiar. Is there, then, in the arrangement of the consecutive thoughts of which the several trains are composed, any method or regularity common, I will not say to all, but to any two of them? According to Hume and to most of his successors in the same path of enquiry, there ought to be. Thus the

illustrious author of the 'Analysis of the Human Mind', affirms, without rebuke or protest from any one of his not less illustrious commentators, that 'our ideas spring up or exist in the order in which the sensations existed of which they are the copies: that of those sensations which occurred synchronically, the ideas also spring up synchronically, and that of the sensations which occurred successively, the ideas rise successively.' And he adds, 'this is the general law of the Association of Ideas,' remarking, by way of illustration, that, as 'I have seen the sun, and the sky in which it is placed, synchronically, if I think of the one I think of the other at the same time'; and that, as when committing to memory a passage of words, as, for instance, the Lord's Prayer, we pronounce the words in successive order, and have consequently the sensation of the words in successive order, so when we proceed to repeat the passage, 'the ideas of the words also rise in succession, *Our* suggesting *Father*, *Father* suggesting *which*, *which* suggesting *art*, and so on to the end.'[1]

Oh Law! Law! most abused of scientific terms, what an infinity of dogmatic illegalities are committed in thy name! The one thing which scientific law implies is regularity of occurrence, but what regulation is it that is obeyed in common by a number of sequences commencing at the same point in Hyde Park, yet terminating, one in Africa, another in America, a third in Palestine, and a fourth in the centre of England? Can it have been seriously said that it is impossible for us to think of the sky without thinking simultaneously of the sun which illu-

[1] Analysis of the Phenomena of the Human Mind. By James Mill. Edition of 1869, with Notes by Alexander Bain, Andrew Findlater, George Grote, and John Stuart Mill, vol. i. pp. 78 *et seq.*

minates the sky? Is it impossible for us to think instead of the ether which constitutes it, or peradventure even of the resemblance between its celestial azure and what Moore calls the 'most unholy blue' of some frolicsome Cynthia's eyes? And is it not notorious that when saying the Lord's Prayer—a prayer which, in spite of the injunction by which its original dictation was accompanied, to 'avoid vain repetitions, as the heathen do,' many Anglican clergymen insist on repeating half-a-dozen times in a single service—is it not notorious that, so far from the idea of one word suggesting to us the idea of the next, no small effort of attention is requisite to enable us to have any idea at all of what we are saying?

It would seem that the author of the 'Analysis' either could not help asking himself questions like these, or, without asking the questions, could not help seeing the commonplace truths involved in the inevitable replies to them. It would seem to have been semi-consciousness of the utter inability of the evidence first cited by him to justify belief in the necessarily simultaneous or successive occurrence of the ideas of simultaneously or successively experienced sensations, which made him have recourse for help to *complex* ideas. 'If,' he says, 'from a stone I have had synchronically the sensation of colour, the sensation of hardness, the sensations of shape and size, the sensation of weight,—when the idea of one of these sensations occurs, the ideas of all of them occur.' Because, then, I may have ascertained by experience that a stone is white, hard, and round, two feet in diameter, and twenty pounds in weight, am I really incapable, if I happen to break my shin against it, of thinking how hard it is, without thinking also how heavy; or, when trying to lift it, of thinking how

heavy it is without thinking likewise of its shape and colour? Elsewhere the same writer speaks of 'ideas which have been so often conjoined that whenever one exists in the mind, the others immediately exist along with it, seem to run into one another, to coalesce, as it were, and out of many to form one idea.' But which are the ideas whereof this can be said? The writer instances those simple ideas, colour, hardness, extension, weight, which, he says, make up our complex ideas of gold or iron. He instances, too, the ideas of resistance, muscular contractility, direction, extension, place, and motion, of which he says our apparently simple idea, weight, is compounded. Does he mean, then, that we cannot entertain the idea of yellowness without entertaining at the same time all the other ideas necessary for composing the idea of gold, and entertaining, too, that idea in addition to all the rest? Does he mean that a train of thought cannot commence with place without terminating with weight? Of course he means nothing of the kind, although so he distinctly says. Rather, he appears to mean the direct converse, viz., that we cannot have the idea of gold or of weight present to the mind, without having present also all the simple ideas of which those complex ideas are compounded—in other words, not that the occurrence of any one component necessarily calls up all the other components, and forms with them the compound, but that the appearance of the compound brings with it all its separate components.

But neither does this seem to be a strictly correct representation. I am not sure that I can think of gold without thinking of yellowness, but I am positive that I can without thinking of hardness. Nor is there any doubt that the youngest child knows perfectly well what it means when,

trying to lift a stone, it calls the stone heavy, although it might not be more difficult to make the stone itself than the child understand what is meant by muscular contractility. I own that if it be here demanded of me how a compound can be present unless every one of its components be present also, I may under pressure be constrained to suggest that possibly, after all, the very term *compound* or *complex idea* may be somewhat of a misnomer, or at any rate that the constituents of such an idea are much fewer than is commonly supposed. Be it admitted that the idea, so styled, could not have been formed without the instrumentality of other and previously-formed ideas, still it does not follow that the instruments of production should for ever after accompany the product. The rackful of dry toast which is brought to you for breakfast could scarcely have been so neatly sliced without the help of a knife, but the toast is not the less in bodily presence on the breakfast-table because the knife that cut it has been left behind in the kitchen. Neither, although you may probably be aware that salt, suet, sugar, and spice enter into the composition of a Christmas pudding, do you necessarily think of those separate ingredients when you think of the pudding, any more than you would see them separately if you saw the pudding. The only qualities which you apparently cannot help thinking of when you think of the pudding are its size, shape, and colour.

One word more about the assumed regularity in the succession of ideas. That when you are repeating a familiar form of words or playing a familiar piece of music, every word uttered or note struck, by reason of connexion of some sort between itself and the word or note next in order, enables you without the smallest mental effort to

utter that word or strike that note, is too notorious to be questioned. But I do very earnestly question whether the connexion that thus operates is an association of ideas. How can it be, when, as frequently happens, you have not the smallest idea of what it is you are saying or playing? Have you not often, after reverently saying grace, like the decent paterfamilias you probably are, occasioned a giggle round the table by saying it again a minute or two afterwards, in utter unconsciousness that you had said it just before? Or, if I may so far flatter myself as to fancy my reader a fair daughter of the house instead of the staid house father—has it never happened to you, Miss, while executing a brilliant performance on the piano, to have been so entirely engrossed by an animated flirtation carried on simultaneously, that, if at the conclusion of the piece you had been asked what you had been playing, you could not have replied whether it was *Là ci darem la mano* or *Non mi voglio maritar?* And is it not evident that non-existent ideas cannot have called real ideas into existence?

My own modest contribution towards explanation of these mysterious phenomena is as follows. Apart from association of *ideas*, there is a separate and independent association—to wit, association of *volitions*. While committing to memory a form of words, or trying a new piece of music, every separate movement of your tongue or of your fingers is consequent on some separate volition. Each series of movements is consequent on a series of volitions. By being repeatedly made to follow each other in the same order, the several volitions become connected with each other, so that whenever the mind desires to marshal them in the aforesaid order, each one, as it presents itself,

brings with it the next in succession, until the whole series is completed; while, as each volition has consequent upon it a corresponding movement, a series of corresponding movements simultaneously takes place. The mind meanwhile is quite unconscious of the muscular movements that are going on. What it is conscious of are the volitions without which no voluntary movements of the muscles could have been made, and of which the mind must needs be conscious, because a volition of which the mind was not conscious would be an involuntary volition, a birth too monstrous for even metaphysics to be equal to. But although necessarily conscious of these volitions, the mind is only momentarily conscious. It pays them barely an instant's attention, and therefore instantaneously forgets them, retaining no more trace of them than if they had never been.

The doctrine of Hume's which next confronts us is his famous one concerning Cause and Effect. He commences it by explaining that all objects of human enquiry are divisible into two kinds—1. Relations of Ideas, like those of which geometry, algebra, and arithmetic treat, and which are either intuitively certain, or 'discoverable by the mere operation of thought, without dependence on what is anywhere existent in the universe,' as, for example, the truths demonstrated by Euclid, which would be equally incontestable even 'though there were never a circle or a triangle in nature:' 2. Matters of Fact, as, for example, the sun's rising and setting, or the emission of light and heat by fire, which are never discoverable by unassisted reason, because of no one of them would the opposite imply a contradiction or be consequently inconceivable; and in our knowledge of any one of which we can never

'go beyond the evidence of our memory and senses,' except by means of reasons derived from experience of some fact or facts connected in some way or other with the particular matter of fact we are considering.

So far, all is comparatively plain sailing, but Hume now propounds a difficulty which he at first presents as seemingly insurmountable, but which I cannot help thinking to be mainly of his own creation, and which he himself, almost immediately afterwards, suggests a mode, though a very inadequate mode, of overcoming. His language here is not marked by his usual perspicuity, or rather—to speak without respect of persons—it contradicts itself in most astounding fashion; but his meaning is not the less certainly the following, for there is no other construction which his words will bear.

'What,' he asks, 'is the foundation of all conclusions from experience?' Why is it that, having found that such an object has always been attended with such an effect, we infer that similar objects will always be attended with similar effects? The proposition that a certain antecedent has always been followed by a certain consequent, and the proposition that the same antecedent will be followed by the same consequent, are not identical. What, then, is the connexion between them which causes one to be inferred from the other? The connexion is unhesitatingly pronounced by him to be neither intuitively perceived, nor yet to be 'founded on any process of the understanding.' If you insist that the inference is made by a chain of reasoning, he challenges you to produce that reasoning, and taking for granted that you have none to produce, he proceeds to indicate what principle it is which, in his opinion, does determine us to form the inference. That principle

he declares to be custom or habit, by which alone, he asserts, we are, after the constant conjunction of two objects, determined to expect the one from the appearance of the other; adding that all inferences from experience are effects of custom, not of reasoning.

What is the correct answer to this question of Hume's I shall be rash enough to endeavour to indicate a little further on; meanwhile there can be no temerity in saying that whatever be the right answer, Hume's is certainly a wrong one. Habit plainly cannot be its own parent. It enables us to repeat more easily what we have already repeatedly done, but it cannot be the cause of our doing or being able to do anything for the first time. An infant that has once burnt its fingers by touching the flame of a candle, expects that if it touch the flame again it will burn its fingers again, but it does not expect this because it has been in the habit of expecting it. Neither, if we be here bidden to understand that the habit referred to is not any mental habit of our own, but a habit which we have observed certain phenomena to have of following each other, shall we thereby be brought one whit nearer the truth. Our infant with the burnt finger has not observed that flame is in the habit of burning. It only knows that flame did burn on the one occasion on which it tried the experiment, which experiment it consequently declines to repeat. Besides, no one needs to be told that inferences, though thus capable of being drawn from single occurrences, are drawn with increased confidence from observation of habit. We all know already that, having always found that fire burns, we infer that it always will burn. What we want to know is, why we draw this inference. This is the question which Hume puts, and respect-

ing which he gives very positively the negative reply that the inference is not drawn either intuitively, nor yet by any process of the understanding. Yet that a body when not moving must needs be at rest, is not more certainly demonstrable than that inferences cannot possibly be drawn except in one or other of these two ways. Is not every inference a species of belief, and must not every belief be either innate within us, or have been acquired artificially; and, as in the latter case, it is a mental acquisition, must it not in that case have been acquired by an operation of the mind or understanding? Is it not clear, then, that inferences must always be either intuitive or ratiocinative; and is it not strange that Hume should deny that they ever are so? Yet stranger still is it, that even while denying them to be either one or the other, he, almost in the same breath, pronounces them to be both. For, after having on one page denied that they are founded on reason, or any process of the understanding, he describes them on the next page as being not simply founded on, but as being themselves 'processes of the mind,' 'processes of thought,' and immediately afterwards 'arguments,' nay, '*reasonings* from experience;' and, yet again, after as short a pause, these very same 'reasonings,' and 'arguments,' and 'processes of the mind and thought,' he concludes by styling 'natural instincts which no reason or process of the thought or understanding is able either to produce or to prevent'—'operations of the soul as unavoidable' when the mind is placed in certain circumstances, as it is 'to feel the passion of love when we receive benefits, or hatred when we meet with injuries.'

What are we to say to a description of mental operations which are and are not 'arguments' and 'reasonings,' which

are and are not 'processes of thought,' which are not 'intuitive,' and which yet are 'instincts?' How are we to account for such amazing inconsistencies in an exposition of one of the greatest of philosophers? With all humility, I submit the following as a possible solution of the enigma.

The one solitary ground on which Hume denies the argumentative and ratiocinative character of what he nevertheless terms arguments and reasonings, is the impossibility of producing the *chains* of argument or reasoning of which they are composed. But this impossibility can at most only prove that the reasonings are elementary, and have, consequently, no component parts into which they can be resolved. But reasoning is not the less reasoning for being elementary, or for being only a single link in a chain, instead of being itself a chain composed of many links. Still, being elementary, it may occur to, and pass through, the mind with extreme rapidity—with not less rapidity than an intuition or instinct, for which therefore it may easily be mistaken, as accordingly it has actually been by Hume. But that a reasoning from experience is not really an instinct is certain, firstly, because intuitive or instinctive reasoning, if not a phrase absolutely devoid of meaning, is a contradiction in terms; and, secondly, because, if it were instinctive, it would precede instead of following experience, and a baby, instead of finding out that flame burns by touching it, would know beforehand that flame burns, and would therefore not touch it.

From the species of Belief constituted by an inference from experience, Hume, by an easy transition, passes on to Belief in general, which he defines to be 'nothing but a more vivid, lively, forcible, firm, steady conception of an object, than what the imagination alone is ever able to

attain,' referring, by way of illustration, to an animal with the head of a man and the body of a horse, which anyone can imagine, but no one can believe in, and desiring us apparently to suppose that if our groom were to come and tell us that he had found a centaur feeding in the paddock beside our favourite saddle-horse, our sole reason for believing in the horse and for not believing in the centaur would be our greater ability to conceive the one than the other. That such a definition should for a moment have satisfied its author's curiosity, is itself a psychological curiosity which must not, however, be suffered to detain us. Whoever, not content with knowing perfectly well what belief is, desires to have his knowledge of it set down in writing, should read the admirable notes on the subject, with which Mr. John Mill and Mr. Bain have enriched the last edition of Mr. James Mill's 'Analysis of the Human Mind.' Most readers, however, will probably be disposed to avail themselves here of a rather favourite phrase of Hume himself, and to plead that, 'if we agree about the thing, it is needless to dispute about terms;' and it is not unlikely that such of them as may have formed their notion of metaphysical discussions in general from the specimens given above, may go so far as to hint a doubt whether any of the nice verbal distinctions which metaphysicians so much affect, are really worth the trouble required to understand them. Nor would anyone, perhaps, be much the worse for acting upon this suspicion, provided that, in accordance with it, he kept altogether aloof from the studies which it disparages. His ideas need not be the less clear because he neither knows nor cares of what they are copies, nor whether they are copies of anything; nor will the order of their occurrence be at all affected in con-

sequence of his being similarly careless, whether that order is or is not governed by a *law* of association; neither need his inferences from experience be the less sound in consequence of his never having enquired how or why they are deduced. But although the most absolute ignorance and corresponding indifference about these and kindred topics may not tend in the least to disqualify him for performance of the whole duty of man, it is not the less important that, if he do care to know aught about them, his knowledge should be exact, for there is no knowing beforehand how luxuriantly the minutest germ of theoretical error may ramify in practice, or into what substantive quagmire trust in deceitful shadows may lead. These respectable aphorisms may be beneficially borne in mind during perusal of what is about to be said.

If the fact were really, as Hume supposed, that we have *no* reason for our inferences from experience, and draw them only because either we have been in the habit of drawing them, or because we are so constituted as to be unable to help drawing them, the reason of our drawing them plainly could not be that we perceive any necessary connection between antecedent and consequent events, or any force or power binding these together as cause and effect. Accordingly, Hume does not scruple to affirm that 'we have no idea of connection or power at all, and that these words are absolutely without meaning when employed either in philosophical reasoning or in common life.' Every idea, he argues, referring to a rule which he somewhat hastily supposes himself to have already proved to be without exception, must needs have been copied from some preceding sensible impression, but neither from within nor from without can we have received an

impression from which this particular idea can have been copied. No keenest scrutiny of any portion of matter, no study of its external configuration or internal structure could, previously to experience, enable us to conjecture that it could produce any effect whatever, still less any particular effect: could enable us to guess, for instance, that flame would burn, or ice would chill, if touched. Nor even though on once touching flame we get our fingers burnt, are mature philosophers like us to conclude, as if we had no more intelligence than so many babies, that if we touch again we shall be burnt again. All we have as yet learnt from the experiment is that the sensation of touching fire has once been followed by the sensation of burning, but nothing has occurred to suggest that in the first sensation lurked any secret power of producing the second. And what a single experiment does not prove, no number of repetitions of precisely the same experiment with precisely the same results can prove. Even though on a lengthened course of experience we have found that in every case of our touching flame our fingers have been burnt, we are still as far as ever from perceiving any bond of connection between the two events. We do indeed believe that as flame when touched has hitherto invariably burnt, so, whenever touched hereafter, it will hereafter invariably burn; but this, according to Hume, we believe simply because by long practice we have contracted such a habit of associating the idea of touched flame with burnt fingers, that whenever we witness the one we cannot help expecting the other.

Neither, if, withdrawing our eyes from the outward world, we cast them inwardly upon the operations of our own minds, shall we, according to Hume, any the more discover

what we are in search of. What though we know by experience that whatever, within certain limits, our will appoints, our bodily organs or mental faculties will ordinarily perform; that our limbs will move as we wish them, and our memory, reason, or imagination bring forward ideas which we desire to contemplate, what knowledge have we here beyond that of certain volitions and certain other acts taking place in succession? What smallest evidence have we of any connection between the volitions and the other acts? A volition is an operation of the mind, is it not? and body is matter, is it not? And do you pretend to know—can you form the smallest approach to a guess—how mind is united with body, and how it is possible therefore for the refined spiritual essence to actuate the gross material substance. If you 'were empowered by a secret wish to remove mountains, or to control the planets in their orbit,' would such extensive authority be one whit more inexplicable than the supposed ability of your will to raise your hand to your head or to cause your foot to make one forward step?

If, nevertheless, you fancy you understand in what manner the will has some of the bodily organs under its government, how, pray, do you account for its not having all equally—the heart and liver as well as the tongue and fingers? Without trying, you never would have discovered that your bowels *will not*, any more than without trying you could have known that your limbs *will*, ordinarily move in conformity with your wishes. Neither, if one of your limbs were to be suddenly paralysed, would you, until you tried, become aware that it would no longer move as you wished. If there be, then, a power attached to the will, it is plainly experience alone which apprises

you of its existence; whereas if you were independently conscious of it, you would know beforehand precisely what it can and what it cannot effect, and would, moreover, when you lost it, become instantly aware of your loss.

Again, and above all, does not anatomy teach us that when the mind wills the movement of any bodily member, it 'is not the member itself which is immediately moved, but certain intervening nerves, muscles, and animal spirits, or possibly something still more minute and more unknown,' through which the motion is successively propagated until it reach the member? So that when the mind wills one event, a series of other events, quite different and quite unthought of, take place instead; and it is only by their means that the will's purpose is finally achieved. But how can the mind be conscious, how can it form the remotest conception, of a power which not only never does what the mind desires, but never does aught of which the mind is cognisant?

And as we are thus utterly unable to perceive any power that the mind has over the body, so are we equally unconscious of any power of the mind over itself. We know as little of its internal nature and constitution as we do of its mode of connection with the body. We know by experience that at the bidding of the will ideas are continually brought forward; but by what means they are brought forward we are absolutely ignorant, as we are also of the reasons of the fluctuation of mental activity, and why mental operations are more vigorous in health than in sickness, before breakfast than after a heavy dinner or deep carouse.

Such, on the issue immediately before us, is Hume's reasoning, to which—though necessarily very greatly condensing it—I shall, I am sure, be acknowledged to have

conscientiously striven to do full justice, by bringing all its points into the strongest light, and arranging them in the most effective order. Still, with its utmost strength thus displayed before us, we are fully warranted in asserting *à priori* that its whole utmost strength is weakness. If, by following a leader who has engaged to conduct us to a certain spot, we find ourselves at our journey's end in a quite different place, no appeal that the guide can make to maps or finger-posts will persuade us that he has not mistaken the way. Nor need our judgment be otherwise, even though our guide be Hume, if, having started with him in pursuit of truth, we are finally landed in a patent absurdity. With all due respect for logic, we protest with Tony Lumpkin against being argufied out of our senses, as we plainly should be if we allowed ourselves to be persuaded that whenever we use the words *power* or *connection* we have no idea thereto correspondent. Since, then, Hume tells us this, we may be quite sure that he has been deluded by some fallacy which may be detected by adequate search; and being, moreover, sensible that we really have the idea our possession of which is denied by him, we may be equally sure that the original of which the idea is a copy is similarly discoverable. In sooth, neither the one nor the other is far to seek. The fallacy consists simply in confusion of the definite with the indefinite article. The original of our idea of power Hume himself indicates even while rejecting it. Although constrained by Hume's demonstration to confess that we cannot even conjecture of what kind is *the* authority which the will exercises over the limbs, we are not the less sensible that it does exercise *an* authority of some sort or other, which they are unable to disobey. We know that in ordinary circumstances our

limbs will move when we wish them to move, and will remain quiet when we wish them not to move. Nor this only. We moreover know, or at any rate fancy we know, that they would not have moved unless we had wished them. In examples like these of volitions followed, as the case may be, by *premeditated* motion or rest, we have something more than the simple sequence observable in the succession of external events. We do not perceive simply that, as when fire is lighted, heat is emitted, so when the mind wills the body moves. We perceive clearly that there must be a connection of some sort between antecedent and consequent, without which the first certainly *would not* and, we fancy, *could not* have followed the first. We perceive, in short, that the second followed *because* the first preceded. If fire were an animated being, capable of forming and manifesting volitions ; and if we observed that whenever it wished to emit heat, heat was emitted ; and that whenever it wished to withhold heat, heat was withheld ; and if we were thereupon to say that fire has the power of emitting or withholding heat at its pleasure, our words surely would not be destitute of signification ; they would certainly possess some meaning, and that a very obvious one. And so they as certainly do when we say that the mind has power over those bodily movements which we observe to take place and to cease in constant conformity with its will. I am not saying that what they mean is necessarily truth—we will come to that presently—all I say as yet is, that they mean something, and that that something, whether it be a real or only an imaginary perception, is perfectly fitted to be the original of that idea of 'power' *connecting* cause and effect, or of 'connection' *between* cause and effect, which Hume maintains does not

exist, because there is no original from which it can have been copied. It matters not that we are quite ignorant of what nature is the something from which our idea of power possessed by the mind over the body is derived, and which, for aught we know, may reside, not in the mind, but in the body, and may consist, not of any strength inherent in the former, but of loyalty and docility inherent in the latter. Just as the authority of a popular general over a well-disciplined army is not the less real because the soldiers, every one of whose lives is at the general's disposal, might, if so inclined, mutiny *en masse*, so it can make no difference in the mind's power over the body whether the mind be intrinsically able to enforce obedience, or the limbs be so constituted as to be unable to disobey. As little does it matter that we are also ignorant of the mode in which the mind's behests are communicated to the members. It is not the less certain that in some mode or other they are communicated. Neither does it signify more that the mind does not communicate directly with the part of the body which it desires to influence, and acts upon that part only by means of action propagated through a series of intervening parts; or that it is able to direct only some organs, and not others, or cannot direct even those, if by some accident they have become seriously deranged. A strong-armed blockhead is not the less obviously able to pump up water because the terms 'muscular contractility' and 'atmospheric pressure' are as heathen Greek to him; or because the pump-handle, which alone is directly moved by him, touches, not the water itself, but only the first link in a chain of mechanism connecting it with the water; or because, if the sucker of the pump got choked, or the well were to dry up, it would be vain for him to go

on moving the pump-handle. Blockhead as he is, nothing of all this in the least diminishes his conviction that as long as the pump continues in order and there remains water in the well, he can oblige the water to rise by moving the pump-handle; nor can anything analogous prevent the mind from feeling that whenever, in ordinary circumstances, it wills that the limbs be moved, the limbs not only will be moved, but cannot help being moved accordingly. But it is simply impossible that, from the exercise of volitions which it knows will be obeyed, the mind should not receive the sensation of exercising causal power; and having thus got the sensation, it has nothing to do but to copy the sensation in order to get the idea of causal power. *Ce n'est que le premier pas qui coûte*; the first step being taken the others cost nothing. The mind having, by introspection of its own operations, discovered what Hume, though professing to look in the same direction, unaccountably contrived to overlook—the idea, namely, of causal power—proceeds to apply that idea to the connection of external phenomena. Not only do we, whenever we see a horse or an ox walking of its own accord, infer that the animal walks *because* it wishes to walk; but having observed that, when a stone is thrown into the air it invariably falls presently afterwards towards the ground; that a magnet invariably attracts any light piece of iron placed near it; that red-hot coals always burn; and that water always moistens, we infer that the second constituent of each brace of phenomena takes place *because* of the first, meaning thereby that there is some strong bond *connecting* the two and *compelling* one to follow the other. If called upon to justify this inference, we may do so by reducing to absurdity its only possible alternative. If there be supposed to be no connection

between two phenomena constituting one of those invariable sequences which we are accustomed to denominate cause and effect, the sequence which they constitute must needs be an unconnected sequence, and the only reason for styling one of the phenomena a cause is, that it is an antecedent which the other invariably follows. But according to this, as has been pointed out over and over again, day would be the cause of night, and night the cause of day, and tidal flux and reflux likewise would be each other's causes; and Mr. J. S. Mill has therefore proposed to interpolate a word, and to define the cause of a phenomenon as 'the antecedent on which it (the phenomenon) is invariably and *unconditionally* consequent.'[1] I must, however, confess myself unable to perceive how the definition is improved by this emendation. There is not, and cannot possibly be, such a thing as *unconditionally* invariable sequence, as, indeed, Mr. Mill himself virtually admits by expressly assuming as an indispensable condition of all causation that 'the present constitution of things endure.' But if, notwithstanding the presence of this indispensable condition, it be permissible to call any sequence unconditionally invariable, then the sequences of night upon day and of day upon night are such sequences, and day and night continue consequently entitled to be styled each other's causes as much under the amended as under the original definition. For as long as 'the present constitution of things endures,' that is, as long as the earth continues to revolve on its axis, and the sun continues to shine, and no opaque substance intervenes between earth and sun, day and night will continue to be as invariably and unconditionally each other's antecedents as sunlight will continue to be the antecedent or concomi-

[1] Mill's 'Logic.' 5th Edition. Vol. i. p. 377.

tant of day. True, Mr. Mill denies that the earth's diurnal motion is part of the present constitution of things, because, according to him, 'nothing can be so called which might possibly be terminated or altered by natural causes:' but, if so, then neither ought sunlight to be so called, for it too quite possibly may, nay, in the opinion of many philosophers, most certainly will, be extinguished eventually by natural causes. If day ought not to be called the unconditionally invariable consequent of night merely because it would cease to be so if the earth were to cease turning on its axis, then neither ought it to be called the unconditionally invariable consequent of the unshrouded proximity of the sun, inasmuch as it would cease to be thereupon consequent if the sun were to become burnt out. If night be not, and if sunlight be, the cause of day, the reason is not that sunlight always hitherto has been, and, on one indispensable condition, always will be followed by day, for so equally has hitherto been, and on the same condition will hereafter be, night. The real reason is, that sunlight not only always has been and will be, but also always *must* be followed by day; that unless the constitution of nature very materially change, wherever is sunlight day *must* be; whereas not only might day be, although night had never preceded, but unless night had preceded, day must have been from the beginning. In short, to constitute cause, invariability, however unconditional, will not suffice. Another quality must be added, and that quality I contend to be obligatoriness. A cause, I maintain, would not be a cause unless its effect not only do or will, but *must* necessarily follow it. In common with the great unphilosophic mass of mankind, I hold that between cause and effect there is a binding power which constrains the one to follow the other.

If asked whence we suppose that power can have been derived, such of us, as conscious that we are 'no very great wits,' don't mind confessing that we 'believe in a God,' will not mind either suggesting that the power, wherever not exerted by an animated creature, may possibly be directly from God. One thing certain is, that inanimate matter cannot possibly possess or exercise any force or power whatever, so that, unless matter, although apparently dead, be really alive, attraction, cohesion, gravitation, and all its other so called forces, being incompatible with dead inertness, must needs be manifestations of some living, and possibly divine, power. Far from there being any difficulty in conceiving Omnipresent Deity to be exhibiting its might in every speck of universal space in every instant of never-ending time, it is, on the contrary, impossible to conceive otherwise. We cannot conceive one single minutest point in limitless extension to be for one moment exempt from the immediate control of a divine nature assumed to be

> Diffused throughout infinity's expanse
> And co-existent with eternity.

Here, indeed, we hasten to acknowledge with Hume that 'our line is too short to fathom the immense abyss' which we have now reached. But we need not, therefore, follow Hume to the lengths to which his insidious mock-modesty would fain entice us. We may concede to him that 'we have no idea of a Supreme Being but what we learn from reflection on our own faculties,' but we need not imitate him by perversely shutting our eyes to the evidences of an energy inherent in our own faculties, and thereby entitle him to insist on our joining him in denying that there is any evidence of energy in the Supreme Being.

We need not, because constrained to admit that we know no more of the essence of divine, than we do of human, power, pretend that we cannot even conceive such a thing as divine power. Hume's affectation of profound ignorance on the subject must have occasioned unusual amusement in a certain quarter. The Devil can seldom have had a more hearty grin at his darling sin than when witnessing this peculiar exhibition of the pride that apes humility.

That Hume's ignorance was nothing but affectation is proved by his veering completely round immediately afterwards, and in his very next chapter, and almost in his very next page, pronouncing it to be 'universally allowed that matter in all its operations is actuated by a necessary force, and that every natural effect is so precisely determined by the energy of its cause that no other effect in such particular circumstances could possibly have resulted from it.' Throughout the same chapter he argues in the same sense, and quite forgetting how obstinately he had just before contended that there are absolutely no such things as connection or power at all, he defies any one to 'define a cause without comprehending, as part of the definition, *necessary* connection with its effect.' So highly, indeed, does he now rate that connecting power, whose very existence he had previously so vehemently denied, that he professes himself unable to set any limit to its efficacy. Even for those who should undertake to deduce from it the impossibility of any liberty of human will, and consequently of any human responsibility, pleading that, inasmuch as with a continued chain of necessary causes, reaching from the first great cause of all to every separate volition of every single human creature, it must needs be the Creator of the world who is the ultimate

author of all volitions, and consequently solely accountable for every crime which man commits, he affects, with exceedingly ill-sitting sanctimoniousness, to have no better answer than that such belief, being impious, must be absurd and cannot be true. It did not suit his purpose to point out that the volitions of Omnipotence itself, equally with human volitions, are necessary effects of causes—the causes in their case being the other attributes with which Omnipotence is conjoined—and that as it is nevertheless impossible for the volitions of Omnipotence to be otherwise than absolutely free and uncontrolled, so there is no reason why human volitions likewise should not, in spite of the same objection, be as thoroughly free as our own feelings assure us they are.

Hume's sudden conversion, so amazing at first sight, from flattest denial to positivest assertion of causal power, becomes intelligible when he is seen immediately afterwards using his newly adopted creed as a fulcrum whereon to rest his argumentative lever in his assault upon Miracles. About that celebrated piece of reasoning, startling as the avowal may sound, there is, to my mind, nothing more remarkable than its celebrity, for, on close inspection, it will be found to be entirely made up of (1) the demonstration of a truism, and (2) the inculcation of a confessedly misleading rule. Not far from its commencement will be found a definition which, if correct, would leave nothing to dispute about. A miracle, we are told, is 'a violation of the laws of nature,' of laws which a firm and unalterable experience has established. But if so, *cadit quæstio.* Of course, there can be no alteration of the unalterable. No need, of course, of further words to prove that a miracle thus defined is an impossibility.

Let us suppose, however, the word *unalterable* to have been used here by a slip of the pen instead of *unaltered*, and that Hume really meant by a miracle any alteration of what had previously appeared to be the constant course of nature. Even so, we shall have him contending that no amount, however great, of testimony however unimpeachable, ought to be accepted as adequate proof of such an alteration. Of what he urges in support of this position much may be at once dismissed as altogether irrelevant. That the most honest witness may be the dupe of optical or auricular illusion, or of a distorting or magnifying imagination; that there is in many minds a natural predisposition to believe in the marvellous, and that the love of astonishing often gives exaggerated expression to the exaggerations of the fancy; that self-interest and religious zeal often furnish additional motives for mendacity, and that testimony, even when sincere at first, is apt to become corrupted at every stage as it passes from hand to hand, or is committed to paper—all this, together with any further enumeration of circumstances calculated to invalidate testimony, is quite beside the real question. It merely proves what no one needs to have proved, the propriety, viz., of weighing evidence and balancing adverse probabilities; and even though it proved in addition that of all the so-styled miracles on record, there is not a single one the evidence for which is sufficient, it would still prove nothing to the purpose. For Hume is arguing against the credibility, not of any miracles in particular, but of all miracles in general, those included the witnesses for which are of indisputable intelligence and undisputed veracity. Be the quality of the testimony what it may, no quantity of it, according to him, can be sufficient. This is the essence of his thesis, the

only part of it in which there is any novelty, and in behalf of this part all that he has to say may be resolved into a sophism, followed by a repetition of the same begging of the question, as is involved in his afore-cited definition of a miracle. In substance it runs as follows. All testimony is at best but a description of the results of sensible experience—of observations of the senses—but the most faithful description must needs be a less vivid presentation of truth than the reality described. A single original is better evidence than any number of copies. Your own personal experience is more trustworthy than any number of mere records of the experience of other people, and where the two conflict, the former always deserves preference. Now the personal experience of each one of us assures us that many sets of natural phenomena take place in perfectly invariable sequences, in sequences so invariable as to appear to be, and to be familiarly spoken of as, manifestations or operations of certain inflexible laws of nature. Within our experience there has never been a single deviation from any such law. Wherefore, though all the rest of mankind should unite in asserting that they have observed such a deviation, we ought not to believe them. Even though, for example—the example, however, being not Hume's, but my own—we were, on leaving home some morning, to hear on all sides that, while we were yet in bed, the sun was seen to rise in the west instead of the east, and though we found the statement repeated in the 'Times' and 'Daily News,' and presently afterwards saw it posted up at the Exchange as having been flashed by electric wire from New York and Kurrachee, we are not for a moment to doubt that these reiterated and mutually corroborative statements are utterly false. For, numerous and consistent

as they may be, they are but copies of the experience of other people, while, although we may have to oppose to them only our own single experience, still that single experience is original, and therefore of more worth. The value, moreover, of any experience is, irrespective of originality, determined by the difference in number between the results of opposite kinds which it has discovered. The smaller number is deducted from the larger, and the balance represents the probability that the results which have most frequently occurred hitherto will continue to occur henceforward. The larger the deduction thus to be made, the smaller the probability, and *vice versâ*; and when the deduction is *nil*, or when there has hitherto been complete uniformity, the probability becomes virtual certainty. When two original experiences are opposed to each other, their respective values, ascertained in the same manner, are compared, and trust is reposed in one or the other accordingly. Now, according to these principles, difficult as it might be in the case supposed for any one to conceive what motive all the rest of the world could have for lying, it would be still more difficult to believe them to be speaking truth. For why do we ever believe anything that anyone says? Why but because we have learnt by experience that, when people have no apparent motive for lying, they commonly do speak the truth? But the same experience which has taught us this has taught us likewise that people do now and then lie without apparent motive. At best, therefore, there is never more than a probability that people are speaking the truth, while in this instance, the supposition that they might be speaking the truth would imply that there may be a truth against which there is proof amounting to certainty. For what they affirm is

that something has happened the very reverse of what has invariably happened before in the same circumstances. Is it not infinitely more likely that people should be lying as they have often done before, than that the invariable course of nature should have undergone a variation? With evidence on the one side that has never yet deceived, with no evidence on the other save what has often proved deceptive, how can we hesitate which to accept? Even though the unanimity of testimony be such as might otherwise be deemed complete proof, it is here met by absolutely complete proof in the shape of a law of nature. The greater probability overwhelms the lesser. The stronger proof annihilates the weaker, leaving none of it behind, so that whoever still persists in believing that a law of nature has been violated, must be content to do so without one particle of proof. No quantity of testimony can furnish the smallest proof of a miracle unless the falsehood of the testimony would be a greater departure from antecedent uniformity—in other words, would be a greater miracle—than the miracle which it attests. Unfortunately it is but too notorious that there is not, and never has been, such a thing as uniform truthfulness of testimony to depart from.

Such, unless most unintentionally injured by compression, is Hume's famous argument against miracles, of which the author was sufficiently proud to boast openly that in it he had discovered what 'will be useful, as long as the world endures,' as 'an everlasting check to all kinds of superstitious delusion,' but which, as I nevertheless venture to repeat, is compounded in about equal moieties of transparent sophism and baseless assumption. For is it not the veriest juggle of words to insist on the necessary inferiority of copies to an original, without adverting to the

indispensable proviso that the original with which the copies are compared should be the original from which the copies have been taken? May not a copy of Leonardo Da Vinci's 'Last Supper' quite possibly be equal in force and vividness of expression to the original painting by Benjamin West bearing the same name? Might it not be wise to trust rather to an Airy, or a De la Rue, or a Lockyer's account of what he had observed during a solar eclipse than to your own immediate observations on the same occasion? Besides, this first branch of Hume's argument, if sound, would tell quite as much for, as against, miracles, rendering it equally incumbent on actual witnesses to believe, as on all but actual witnesses to disbelieve. If you are always to prefer your own original experience to mere descriptions given by other people of theirs, then should it happen to be yourself to whom the sun appeared in the west at an hour when, according to custom, he ought to have been in the east, you are not to allow the protestations of any number of persons who, happening at the time to have been looking the other way, saw the sun in his usual place, to persuade you that what you saw was a mock sun or an *ignis fatuus*. Rather than imagine that your own senses can have deceived you, you are to suppose that all about you are in a league to deceive you. For precisely the same reason for which you should reject even universal testimony in favour of a miracle which you have not witnessed, you are equally to reject universal testimony in opposition to a miracle the similitude of which you have witnessed.

Or is it possible for a question to be more distinctly begged than when, to the question whether a miracle has occurred, it is answered that a miracle is not a miracle

unless there be uniform experience against it; that uniformly adverse experience is direct and full proof against anything; and that therefore there must always be full proof against miracles? What is here taken for granted to be full proof is the very thing requiring to be proved. If past uniformity really be a pledge for continued uniformity, of course there can be no departure from uniformity. If the whole question does not at once fall to the ground, it is because no question has ever really arisen. But what shadow of pretext is there for treating an hitherto unvaried course of events as necessarily invariable? From past experience we have deduced what we are pleased to call *laws* of nature, but it is morally impossible that we can seriously think, whatever we are in the habit of saying, that these laws are self-denying ordinances whereby nature's God has voluntarily abdicated part of His inalienable prerogative. The utmost efficacy we are warranted in ascribing to them is that of lines marking certain of the courses within which God's providence is pleased to move. But how can we pretend to know for how long a season such may continue to be the divine pleasure? How do we know that the present season may not be the first of an alternating series, and that it may not at any moment terminate, and be succeeded by one of an opposite character? What though we have some shadow of historical evidence that most physical phenomena have been going on in much the same order for some six thousand years, is that a basis whereon to theorise with regard to the proceedings of Him in whose sight one day is as a thousand years and a thousand years as one day? Might not as well some scientific member of an insect tribe of ephemera, whom ancestral tradition, confirmed by personal experience, had assured that an

eight-day clock had already gone on for six days, pronounce it to be a law of the clock's nature that it should go on for ever without being again wound up? Would the insect philosopher's dogmatism be one whit less absurd than that of those human ephemera who so positively lay down the law about the clockwork of the universe? Those laws of nature to which unerring regularity and perpetuity of operation are so confidently attributed, may they not, perchance, be but single clauses of much farther reaching laws, according to whose other provisions the force of these isolated clauses may, in novel combinations of circumstances, be counteracted by some latent and hitherto unsuspected force? Or is it not, at all events, open to their divine promulgator to suspend their operation at his pleasure? May it not conceivably have been preordained that the globe of our earth, after revolving for a given number of ages, in one direction, shall then, like a meat-jack, or like an Ascidian's heart,[1] reverse its order of procedure, and commence a contrary series of revolutions? Or might not He who prescribed to the earth its rotatory movement, will that the rotation should for some hours cease, and that the sun should in consequence seem to stand still, as it is recorded to have done at the command of Joshua? Improbable as these suppositions may be, who that has not been taken into counsel by his Creator can

[1] 'There is a class of animals called Ascidians, which possess a heart and a circulation, and up to the year 1824 no one would have dreamt of questioning the propriety of the deduction, that these creatures have a circulation in one definite and invariable direction; nor would any one have thought it worth while to verify the point. But in that year M. von Hasselt, happening to examine a transparent animal of this class, found to his infinite surprise that after the heart had beat a certain number of times, it stopped, and then began beating the opposite way, so as to reverse the course of the current, which returned by-and-by to its original direction.'—*Huxley's Lay Sermons*, p. 95.

presume to say that they may not be correct? The events which they involve are not inconceivable, and whatever is not utterly inconceivable may possibly occur, however numerous the chances against its occurrence. It is not then the fact that 'past experience,' however unvaried, affords full proof of the future existence of any event, or constitutes certainty against the future existence of the reverse of that event. Completest uniformity of experience cannot create a certainty by which any opposite probability would be completely annihilated. It only creates a probability which, however great, is still only a probability, and which would become a smaller probability by deduction from it of any opposite probability. But mere probability, however great, always includes some doubt as to its own correctness, some suspicion that its opposite may possibly be correct. How much soever, therefore, uniform experience may vouch for the inviolability of natural laws, it always remains possible for those laws to be violated, and, as miracles are nothing else but violations of natural laws, it always remains possible for miracles to happen. But since miracles are possible, testimony to their occurrence may, with equal possibility, be true, and no further refutation can, I submit, be needed for an argument which insists that all such testimony should be set aside without enquiry as self-evidently false.

Had Hume been content to insist that testimony in favour of miracles should never be received without extreme doubt and hesitation, his lesson might well have passed without further objection than that of its being superfluous for any one with sense enough to profit by it. Nor might it have been easy to discover a flaw in his logic, although he had gone so far as to maintain that no one of

the miracles as yet on record is either adequately attested, or would, even if it had undoubtedly occurred, afford sufficient evidence of any religious truth. The best and only adequate evidence for any religious creed is the satisfaction which it affords to the soul's cravings and promises to the soul's aspirations; and no rational Christian would be at all the more disposed to turn Mussulman, even though it should be demonstrated to his entire conviction that Christ did not raise Lazarus from the dead, and that Mahomet did turn the hill Safa into gold, instead of prudently confining himself to boasting that he could have effected the transmutation if he had thought proper. But for the purpose which Hume had in view, it was necessary to establish, not merely the doubtfulness, but the absolute falsehood of the miracular testimony on which, in his opinion, 'our holy religion' rests, in order that the character of the superstructure being inferred from that of the foundation, both might be condemned together. There is, however, an irreligious as well as a religious fanaticism, and, though it is difficult, while looking at Hume's portrait, to credit the owner of that plump, good-humoured face with feeling of any sort warm enough to be termed fanatical, it is humiliating to note from his example into what strange inconsistency the coolest and calmest judgment may be warped by irreligious prejudice. Having not long before, in order to disparage *natural* religion, emphatically denied the existence of any causal connection between successive events, he now, in order equally to discredit the very possibility of *revealed* religion, tacitly assumes that same connection, not simply to exist, but to be of an efficacy which no disturbing forces can impair. Admitting that 'the Indian prince who refused to believe the first

relations concerning the effects of frost' was wrong in his belief, Hume will have it that the prince nevertheless 'reasoned justly.' Although recognising truth to be the sole worthy object of quest, he yet enjoins rigid adherence to a rule which he is aware must inevitably lead to frequent error.

Rather strikingly contrasted, in respect of execution, with Hume's chapter on Miracles, comes the one next in order on a Providence and a Future State, which, for the skill with which the fallacy involved in it is disguised, may be regarded as quite a masterpiece of false reasoning. Among its leading propositions there is but one which does not command immediate assent. That we can argue but from what we know; that of causes, known to us only by their effects, our estimate ought to be exactly proportioned to the effects; that of a Creator manifested only by His works, no higher qualities, no greater degrees of power, intelligence, justice, or benevolence, can be confidently predicated—whatever be conjectured—than are apparent in his workmanship: all this, on one moment's reflection, is perceived to be indisputable. Needs must it be, however reluctantly, admitted that nothing can be more illogical than to return back to the cause, and infer from it other effects beyond those by which alone it is known to us, or to infer from creative attributes, distinctly manifested, the existence of other and not apparent attributes, endowed with some efficacy additional to that possessed by the former. But does it hence follow that faith in a superintending Providence is so mere a matter of 'conceit and imagination,' a faith so absolutely irrational as Hume considered it? A candid examination of God's works will warrant us in coming to a widely different con-

clusion. Among those works is man—a being who, in spite of the utter insignificance of his greatest *performances*, is capable of forming most exalted *conceptions* of justice, benevolence, and goodness in general, and of feeling the most eager desire to act up to his own ideal. If the divine notions of goodness in its several varieties be not identical with the human, it can only be because they are superior; and so, too, of the divine love of, and zeal for, goodness. It cannot be that the Creator is inferior to the creature in virtues which the creature derives from Him alone. Demonstrably, therefore, God is good and just in the very highest degree in which those qualities can be conceived by man. Demonstrably, too, since the universe is the work of His hands, He must be possessed of power which, if not necessarily unbounded, is at least as boundless as the universe. Thus, rigidly arguing from effects to causes, and scrupulously proportioning the one to the other, man sees imaged on the face of creation a creator, both realising his highest conception of goodness, and wielding measureless might. Is not such a being worthy to be looked up to, and confided in, and adored and loved as a superintending providence? Is not faith in such a providence not simply not irrational, but the direct result of a strictly inductive process? And would it be an irrational stretch of faith sanguinely to hope, if not implicitly to believe, that an union of infinite justice with measureless might may, in some future stage of existence, afford compensation for the apparently inequitable distribution of good and evil which, according to all experience, has hitherto taken place among human beings?

Were it desirable to amplify the apology with which this paper commenced, some additional justification of the

freedom of the foregoing criticisms might be found in hints thrown out by Hume in various parts of the treatise which we have been examining, and particularly in its concluding chapter, that in many of his most startling doctrines he was but half in earnest. Hume's temperament, too cool for fanaticism, had yet in it enough of a certain tepid geniality to save him from becoming a scoffer. The character which he claims for himself, and somewhat ostentatiously parades, is that of a sceptic or general doubter—a character in which, when rightly understood, there is nothing to be ashamed of. To take nothing on trust, to believe nothing without proof, to show no greater respect for authority than may consist in attentive and candid examination of its statements, to accept only verified facts as bases for reasoning on matters of fact and existence—these are golden rules of philosophical research, principles in which lies the secret of all real progress in any of the higher departments of science. By Hume they were adopted *con amore*, and with keen appreciation, not more of their practical utility, than of the sport which he perceived them to be capable of yielding. His serious purpose was to unmask the numberless pretences which in politics, political economy, metaphysics, morals, and theology he found universally current as gospel truths; to expose the ambiguity and contradictions latent in popular thought, and in the popular forms of expression which are so apt to be mistaken for thought, and to indicate the only safe mode of investigation and the only trustworthy tests of genuine knowledge; his favourite amusement to put time-honoured commonplaces on the rack, and demanding their *raison d'être*, to pass on them summary sentence of extinction if they failed to account satisfactorily for their

existence. Unfortunately, in his keen enjoyment of the fun of the thing, he not unfrequently overlooked the solid interests at stake. Like a huntsman who, for the sake of a better run, should outrace his quarry, or who, seeing that the dogs were close upon the hare, should, in order to prolong the chase, start a fresh hare, kept till then snug at his saddle-bow, so Hume, in the excitement of metaphysical pursuit, instead of stopping to gather up whatever verified affirmations came in his way, would prefer to follow any new negation that he espied, or, if momentarily accepting any affirmation as established, would proceed forthwith to affirm its direct opposite with the view of neutralising both. In this, his practice resembled that of metaphysicians in general, who take a singular delight in setting themselves riddle after riddle, which they either assume to be hopelessly insoluble, or which they no sooner solve than they use the solution as the subject of another riddle involving its predecessor in redoubled perplexity. Now, little harm, and little, perhaps, of anything but good, might thereby be done if the lovers of this game were content to play it by themselves, without inviting others to join who are constitutionally unfit for such intellectual wrestling. But mental exercises may to philosophers be health and invigorating sport, and yet be death to the multitude; and Hume, as an Utilitarian, stands self-condemned for making ordinary people uncomfortable by challenging them to disputations confessedly leading no whither, and bewildering them with confessedly 'vain and profane babblings, and strivings after words to no profit, but to subverting of the hearers, and overthrow of the faith of some.' And it is as poor an excuse for this wanton tampering with other people's creeds, as it is poor amends

for its mischievous consequences, that Hume offers when, after watching for a while his puzzled disciples blown about by the winds of adverse doctrine that he has let loose upon them, he proceeds to rally them on their 'whimsical condition,' which he speaks of as a mere laughing matter got up chiefly for amusement. It is only an aggravation of offence that, while, on the one hand, he solemnly pronounces everything to be 'a riddle, an enigma, an inexplicable mystery,' he, on the other hand, cheerily exhorts us not to suffer the 'doubts raised by philosophy to affect our actions.' 'Nature,' he says, 'is always too strong for principles, will always maintain her rights, and prevail, in the end, against all reasoning whatever.' 'The great subverter of Pyrrhonism,' he continues, 'is actual employment and the occupations of common life,' in presence of which its overstrained scruples 'vanish like smoke.' Although real knowledge consists solely in knowing that we know nothing, and in doubting everything, and although sceptics may 'justly triumph' in principles which lead them to deny even the attraction of gravitation, still they had better beware how they act on these principles, lest by stepping unconcernedly out of window they come fatally to grief on the stones below, and so the sect and its tenets be annihilated together. So, or to such effect, Hume: but how can there be just ground for pride in speculations which, as their own professors admit, would, on the first attempt to reduce them to practice, be shattered to pieces by hard facts? That cannot possibly, even on Hume's recommendation, be accepted as metaphysical truth, which flatly contradicts common sense, nor can there be any unbecoming self-confidence in seeking, even though Hume pronounce the search hopeless, for metaphysical truth, with which common sense may be reconciled.

CHAPTER IV.

HUXLEYISM.

'À force d'esprit tout lui paroît matière.'

IN one of his interesting 'Lay Sermons,' the most interesting perhaps of the whole interesting series, Professor Huxley, taking for his theme the 'Physical Basis of Life,' combats 'the widely-spread conception of life as a something which works through matter, but is independent of it;' affirming, on the contrary, 'that matter and life are inseparably connected, and that there is one kind of matter which is common to all living beings.' The preacher may be safely allowed to have satisfactorily made out the second portion of this affirmation. With his own singular felicity of illustration, he shows how all vegetable and animal tissues, without exception, from that of the brightly coloured lichen looking so like a mere mineral incrustation on the rock that bears it, to that of the painter who admires or the botanist who dissects it, are, however diverse in aspect, essentially one in composition and structure. He explains how the microscopic fungi clustering by millions within the body of a single fly, the giant pine of California towering to the height of a cathedral spire, the Indian fig-tree covering acres with its profound shadow, the animalcules of ocean's lowest deep, minute enough to dance in myriads on the point of a needle, and the Finner whale, hugest of beasts, that disports its ninety feet of

bone and blubber on ocean's billowy heights, the flower that a girl wears in her hair, and the blood that courses through her veins, are, each and all, smaller or larger multiples or aggregates of one and the same structural unit, which, again, is invariably resolvable into the same identical elements. That unit, he tells us, is an atom or corpuscle composed of oxygen, nitrogen, hydrogen, and carbon, which, and which alone, seem to be required by nature for laying withal the foundations of vitality, inasmuch as no substance from which any one of these ingredients is totally absent, ever exhibits any sign of life, while, on the other hand, not only are these four ingredients sufficient of themselves to form a substance capable of living, but they actually do with very little (when any) foreign admixture, form all substances whatsoever that are ever found vivified. All such substances, he informs us, are but varieties of *protoplasm*, differing indeed from each other in texture, colour, and general appearance, even as a diamond differs from granite, yet all being equally protoplasm, just as a diamond and a block of granite are equally stones, or as heart of oak and the outer case of a nettle's sting are equally wood. The human ovum, he gives us to understand, is in its earliest stage but a single particle of protoplasm; the human fœtus but an aggregation of such particles, variously modified; the human body perfectly matured, but a larger aggregation of such particles still further modified.

He proceeds to point out, as following from these premises, that a solution of smelling salts, together with an infinitesimal quantity of certain other salts, contains all the elements that enter into the composition of protoplasm, and consequently of whatever substance the very highest

animal requires for sustenance. He does not, however, leave us to suppose that any abundance of the fluid in question would avail aught to save a hungry creature of any sort from starving, but continues his exposition to the following effect. Not only is there no animal, there is not even any vegetable organism, to which the elements of food can serve as food, as long as they remain elementary. It is indispensable that hydrogen and oxygen should combine to form water, nitrogen and hydrogen to form ammonia, carbon and oxygen to form carbonic acid; and even then, even at a table groaning under whole hogsheads of these primitive compounds, there is no single animal that would not find itself at a Barmecide feast. There are many plants likewise, which in the midst of such uncongenial plenty would be equally without a drop to drink; but there are also multitudes of others which, without the aid of any more elaborated nutriment, would be able to grow into a million, nay million million fold of their original bulk. Provided there be in the seed or germ of any of these latter one single particle of living protoplasm to begin with, that single particle may convert into animated protoplasm an indefinite quantity of inanimate ammonia, carbonic acid, and water. The protoplasm thus created in the first instance, and created, let us suppose, in the form of a lichen or a fungus, is converted by decay into vegetable mould, in which grass may take root and grow, and which, in that case, will be converted into herbaceous protoplasm; which, being eaten by sheep or oxen, becomes ovine or bovine protoplasm, commonly called mutton or beef; which, again, being eaten by man, becomes human protoplasm, and, if eaten by a philosopher, becomes part of a mass of protoplasm capable of investigating and of

expounding in lectures or lay sermons, the changes which itself and its several components have undergone.

So far we advance with willing steps like dutiful disciples along the path of knowledge indicated by our distinguished biological teacher, who here, however, pulls us up short by suddenly intimating that he sees no break in the series of transubstantiations whereby precisely such oxygen, hydrogen, nitrogen, and carbon as he is lecturing upon, have become metamorphosed into him, the lecturer, and us, the lectured audience, and cannot 'understand why the language which is applicable to any one term of the series should not be used in regard to any of the others.' Oxygen and hydrogen, he reminds us, are gases, whose particles, at and also much below 32° Fahrenheit, tend to rush away from each other with great force; and this tendency we call a property of each gas. Let oxygen and hydrogen be mixed in certain proportions, and an electric spark passed through them, and they will disappear, and a quantity of water equal in weight to the sum of their weights will appear in their place. But amongst the properties of the water will be some, the direct opposites of those of its components; watery particles, for example, at any temperature not higher than 32° Fahrenheit, tending not to rush asunder, but to cohere into definite geometrical shapes or to build up frosty imitations of vegetable foliage. And let the water be brought into conjunction with ammonia and carbonic acid, and the three will, under certain conditions, give rise to protoplasm, which again, if subjected to a certain succession of processes, will rise by successive stages from protoplasm that gives no other signs of life than those of feeding and reproducing its kind, to protoplasm endowed with the power of spontaneous

motion, and finally to protoplasm that thinks and reasons, speculates and philosophises. Now why should any of the various phenomena of life exhibited by these varieties of protoplasm be supposed to be of a different class from the appearances of activity exhibited by any of the varieties of lifeless matter? What reason is there why, for instance, thought should not be termed a property of thinking protoplasm, just as congelation is a property of water, and centrifugience of gas? Professor Huxley protests that he is aware of no reason. We call, he says, the several strange phenomena which are peculiar to water, 'the properties of water, and do not hesitate to believe that in some way or other they result from the properties of the component elements of water. We do not assume that something called *aquosity* entered into and took possession of the oxide of hydrogen as soon as it was formed, and then guided the aqueous particles to their places in the facets of the crystal or among the leaflets of the hoar frost. On the contrary, we live in the hope and faith that, by the advance of molecular physics, we shall by-and-by be able to see our way as clearly from the constituents of water to the properties of water, as we are now able to deduce the operations of a watch from the form of its parts or the manner in which they are put together.' Why, then, when carbonic acid, water, and ammonia disappear, and an equivalent weight of the matter of life makes its appearance in their place, should we assume the existence in the living matter of a something which has no representative or correlative in the unliving matter that gave rise to it? Why imagine that into the newly formed hydro-nitrogenised oxide of carbon a something called vitality entered and took possession? 'What better philo-

sophical status has vitality than aquosity?' 'If scientific language is to possess a definite and constant signification, we are,' he considers, 'logically bound to apply to protoplasm or the physical basis of life the same conceptions as those which are held to be legitimate elsewhere.' Wherefore, he concludes, that 'if the phenomena exhibited by water are its properties, so are those presented by protoplasm *its* properties,' and that if it be correct to describe 'the properties of water as resulting from the nature and disposition of its component molecules,' there can be no 'intelligible ground for refusing to say that the properties of protoplasm result from the nature and disposition of its molecules.'

Here, however, our lay preacher candidly warns us that by the vast majority of his clerical brethren this doctrine would be denounced as rankest heresy, and that whoever accepts it is placing his foot on the first rung of a ladder which, in most people's estimation, is the 'reverse of Jacob's, and leads to the antipodes of heaven.' He frankly owns that the terms of his propositions are distinctly materialistic: nay, that whoever commits himself to them will be temporarily landed in 'gross materialism.' Not the less, however, does he, mingling consolation with admonition, recommend us to plunge boldly into the materialistic slough, promising to point out a way of escape from it, and insisting, indeed, that through it lies the only path to genuine spiritualistic truth.

In pronouncing this to be exceedingly evil counsel, as with the most unfeigned respect for its author I feel bound at once to do, it might not be necessary for me to undertake a detailed topographical survey of the path alluded to. It might, perhaps, suffice to specify the conclusions

to which the path is represented as leading, in order to show that those conclusions cannot possibly be reached by any such route. By Professor Huxley himself they are thus described :—We know nothing of matter 'except as a name for the unknown and hypothetical cause of states of our own consciousness,' nor of spirit, except that 'it also is a name for an unknown and hypothetical cause of states of consciousness. In other words matter and spirit are but names for the imaginary *substrata* of groups of natural phenomena.'

But if matter be not a thing, but a name, and a name too not for a real, but only an imaginary thing, one perfect certainty is that matter cannot possibly be composed either wholly or in part of molecules, and, by necessary consequence, that life cannot possibly be 'the product of any disposition of material molecules,' nor the phenomena of life be 'expressions of molecular changes in the matter of life.' Of the particular Huxleian doctrine which we are considering, the two moieties are absolutely irreconcileable ; so that on the assumption that either moiety were true, the truth of that moiety would be decisive against the other. If matter have no real, and only a nominal existence, life, which is undeniably a reality, cannot be a property of matter. If life, being an undisputed reality, be a property of matter, matter must needs be a reality also, and not merely a name. Any one, however, who, like myself, is thoroughly convinced that both halves of the doctrine are equally and utterly erroneous, is precluded from employing one for the refutation of the other, and in order to prove, as I shall now attempt to do, that life is in no sense either a product or a property of matter, must resort for the purpose to independent reasoning.

I commence by defining one of the principal terms occurring in the debate. When in scientific discourse we speak of anything as a property of an object, we mean thereby not simply that it is a thing belonging to the object, but also that it is a thing without which the object could not subsist. We mean that it is one of the constituents inherent in and inseparable from the object, whose union gives to the object its distinctive character. When we call fluidity at one temperature, solidity at another, and vaporisation at a third, properties of water, we mean that matter which did not liquefy, congeal, and evaporate at different temperatures would not be water. The habits of exhibiting these phenomena, in conjunction with certain other habits, make up the aquosity or wateriness of water. They are parts of water's nature, and, in the absence of any one of them, water would not be its own self, and could not exist. But in no such sense, nor in any sense whatever, is the life or vitality whereby what we are accustomed to call animated are distinguished from inanimate objects, essential to the existence of the species of matter termed matter of life or protoplasm. Take from water its aquosity, and water ceases to be water; but you may take away vitality from protoplasm, and yet leave protoplasm as much protoplasm as before. Vitality, therefore, evidently bears to protoplasm a quite different relation from that which aquosity bears to water. Protoplasm can do perfectly well without the one, but water cannot for a moment dispense with the other. Protoplasm, whether living or lifeless, is equally itself; but unaqueous water is unmitigated gibberish. But if protoplasm, although deprived of its vitality, still remains protoplasm, vitality plainly is not

indispensable to protoplasm, is not therefore a *property* of protoplasm.

And that it is not a *product* of protoplasm, or a result of any particular arrangement of protoplasmic particles or molecules, is not less easily or unanswerably demonstrable. For if it were, as long as the particular molecular arrangement remained unaltered, life would necessarily be in attendance; an amputated joint would, until decomposition set in, be as much alive as the trunk from which it had been lopped, even as water poured from a jug into a glass is quite as much liquid as the water remaining in the jug. There would be no such thing as dead meat, which was not putrid as well as dead, any more than water can freeze without changing from a fluid to a solid; and there would moreover be production antecedent in origin to its own producer. The force of the last at least of these objections is not to be resisted. Water, ammonia, and carbonic acid cannot, it is admitted, combine to form protoplasm, unless a principle of life preside over the operation. Unless under those auspices the combination never takes place. At present, whenever assuming its presidential functions, the principle of life seems to be invariably embodied in a portion of pre-existing protoplasm; but there certainly was a time when the fact was otherwise. Time was, as geology places beyond all doubt, when our globe and its appurtenances consisted wholly of inorganic matter, and possessed not one single animal or vegetable inhabitant. In order, then, that any protoplasm or the substance of any organism should have been brought into existence in the first instance, life plainly must have been already existent. It must at one time have been possible for life, without being previously embodied, to mould and vivify inert matter;

and it must needs have been by unembodied life that inorganic matter was first organised and animated. There is no possible alternative to this conclusion, except that of supposing that death may have given birth to life—that absolutely lifeless and inert matter may have spontaneously exerted itself with all the marvellous energy requisite for its conversion into living matter, exerting for the purpose powers which, under the conditions of the case, it could not have acquired without exercising before it acquired them. Whoever declines to swallow such absurdity has no choice but to admit that unembodied life must have been the original manufacturer of protoplasm: but to admit this, and yet to suppose that when now-a-days embodied life is observed to give birth to new embodied life, the credit of the operation belongs not to the life itself but to its protoplasmic embodiment, is much the same as to suppose that when a tailor, dressed in clothes of his own making, makes a second suit of clothes, this latter is the product not of the tailor himself but of the clothes he is wearing.

Thus, irrespectively of whatever grounds there may be for believing that life still *does*, it is incontestable that life once *did*, exist apart from protoplasm; and that protoplasm both may and continually does exist apart from what is commonly understood by life, must be obvious to every one who is aware that protoplasm is the substance of which all plants and all animals are composed, and has observed also that plants and animals are in the habit of dying. That matter and life are inseparably connected cannot, therefore, it would seem, be asserted except in total disregard of the teachings both of reason and observation, and 'the popular conception of life as a something which works through matter but is independent of it,' would

seem to be as true as it is popular. If the only choice allowed to us be between 'the old notion of an Archæus governing and directing blind matter,' and the new conception of life as the product of a certain disposition of material molecules, the absolute certainty that the latter conception is wrong, may be fairly urged as equivalent to certainty, equally absolute, that the former notion is right.

How far soever it may be true that, as Professor Huxley says, 'the progress of physical science means, and has in all ages meant, the extension of the province of matter and causation,' it is certainly not true that, as he proceeds to predict, the same province will ever be extended sufficiently to banish from the region of human thought not 'spontaneity' simply, but likewise 'spirit.' In one direction at least, limits are clearly discernible which scientific investigation need not hope to overleap. How much soever we may eventually discover of the changes whereby inorganic matter becomes gradually adapted for the reception of life, physical science can never teach us what or whence is the life that eventually takes possession of the finished receptacle. Possibly we at length may, as Professor Huxley doubts not that we by-and-by shall, see how it is that the properties peculiar to water have resulted from the properties peculiar to the gases whose junction constitutes water; and similarly how the characteristic properties of protoplasm have sprung from properties in the water, ammonia, and carbonic acid that have united to form protoplasm; but knowing all this, we shall not be a hair's breadth nearer to the more recondite knowledge up to which it is expected to lead. To extract the genesis of life from any data that completest acquaintance with the stages and processes of protoplasmic growth

can furnish, is a truly hopeless problem. Given the plan of a house, with samples of its brick and mortar, to find the name and nationality of the householder, would be child's play in comparison. Life, as we have seen, is not the offspring of protoplasm, but something which has been superinduced upon, and may be separated from, the protoplasm that serves as its material basis. It is, therefore, distinct from the matter which it animates, and, being thus immaterial, cannot possibly become better known by any analysis of matter.

Of this emphatically vital question Professor Huxley, as has been already intimated, takes a diametrically opposite view. He does not merely, in sufficiently explicit terms, deny that there is any intrinsic difference between matter and spirit, and affirm the two to be, in spite of appearances, essentially identical. If this were all, I at any rate should not be entitled to object, for I shall myself presently have occasion to use very similar language, although attaching to it a widely different meaning from that with which it is used by Professor Huxley. But the latter goes on to avow his belief that the human body, like every other living body, is a machine, all the operations of which will sooner or later be explained on physical principles, insomuch that we shall eventually arrive at a mechanical equivalent of consciousness, even as we have already arrived at a mechanical equivalent of heat. He considers that with the same propriety with which the amount of heat which a pound weight produces by falling through the distance of a foot, may be called its equivalent in one sense, may the amount of feeling which the pound produces by falling through a foot of distance on a gouty big toe, be called its equivalent in another

sense, to wit, that of consciousness. Yet he protests against these tenets being deemed materialistic, which, he declares, they certainly neither are nor can be, for that while he himself certainly holds them, he as certainly is not himself a materialist. Professor Huxley is among the last to be suspected of talking anything, as Monsieur Jourdain did prose, without knowing it. He knows perfectly well that he has here been talking materialism, but he insists that his materialism is only another form of idealism. He seeks to evade the seemingly inevitable deduction from his premises by representing both matter and spirit as mere names, and names, too, not for real things, but for fanciful hypotheses which may be spoken of indifferently in materialistic or in spiritualistic terms, thought in the one case being treated as a form of matter, and matter in the other as a form of thought. The identity of matter and spirit is, in short, represented by him as consisting in this: that the existence of both is merely nominal, or at best merely ideal.

Ordinary folk may perhaps be somewhat slow to derive from this compromising theory all the comfort which its author deems it capable of affording. Most of us may, probably, be inclined to think that we might as well have been left to fret in the frying-pan of materialism as be cast headlong into idealistic fire, to no better end than that of being there fused body and soul together, and sublimated into inapprehensible nothingness. Our immediate concern, however, is not with the pleasantness of the theory, but with its truth; in proceeding to test which we shall probably find that there is as little warrant for idealising matter after this fashion as we have already seen that there is for materialising mind.

The originator of the theory about to be examined, or rather, perhaps, of a somewhat different theory out of which this has been developed—not to say perverted—may, without much inaccuracy, be pronounced to be Descartes. He it was who, perceiving that we are surrounded on all sides by illusions of all sorts, that not only is there no authority or testimony implicitly to be depended on, but that our senses likewise often play the traitor, and that we can never be perfectly sure whether we are really seeing, hearing, or feeling, or merely thinking or dreaming that we see, hear, or feel, and looking anxiously around for one single point at least on which complete confidence might be placed, discovered such a point in thought. Whatever else we may doubt about, we cannot, he justly argued, doubt that there are thoughts. If it were possible to doubt this, our very doubt would be thought, constituting and presenting as evidence the very existence doubted of. Our thoughts, then, are unquestionably real existences. They may be delusive, but they cannot possibly be fictitious.

We may perhaps hereafter have occasion to note how Descartes, having thus secured one firm foothold and solid resting-place, outwent the farthest stretch of Archimedean ambition by using it, not as a fulcrum from whence to move the world, but as a site for logical foundations whereon he might, if he had persevered, have raised the superstructure of an universe at once mental and material.[1] Intermediately, however, we have to observe how two pre-

[1] Archimède, pour tirer le globe terrestre de sa place et le transporter en un autre lieu, ne demandait rien qu'un point qui fût ferme et immobile : ainsi j'aurai droit de concevoir de hautes espérances si je suis assez heureux pour trouver seulement une chose qui soit certaine et indubitable.—Descartes, *Méditation Deuxième.*

eminent disciples of the Cartesian school have perverted the fundamental proposition of their great master by treating its converse as its synonyme. Descartes having demonstrated that all thought is existence, Bishop Berkeley and Professor Huxley infer that all existence is thought. So says the Professor in so many words, and to precisely the same effect is the more diffuse language of the Bishop, where, speaking of 'all the choir of heaven and furniture of earth, of all the bodies which compose the mighty frame of the world,' he declares that their *esse* is *percipi*, that their 'being' consists in their being 'perceived or known,' and that unless they were actually perceived by, or existed in, some created or uncreate mind, they could not possibly exist at all.

The reasoning in support of these assertions is in substance as follows:—We know nothing of any material object except by the sensations which it produces in our minds. What we are accustomed to call the *qualities* of an object are nothing else but the mental sensations of various kinds which the object produces within us. Some of these qualities, such as extension, figure, solidity, motion, and number, are classed as primary; others, as, for instance, smell, taste, colour, sound, as secondary. Now that these latter have no existence apart from mind can readily be shown thus. If I prick my finger with a needle, the pain I suffer in consequence is surely in myself, not in the needle, nor anywhere else but in myself. If an orange be placed on my open hand, my sensation of touching it is in myself, not in the orange. If the orange could feel, what it would feel would be a hand, while what I am feeling is an orange. Nor are my sensations of pain and touch merely confined to myself; they are also confined to a

particular part of myself, viz., to the brain, the seat of my consciousness, which it is, and not the finger or hand, that really feels when the one is hurt, or when anything comes in harmless contact with the other. To prove this, let the fine nervous threads, which, running up the whole length of the arm, connect the skin of the finger with the spinal marrow and brain, be cut through close to the spinal cord, and no pain will be felt, whatever injury be done: while if the ends which remain in connection with the cord be pricked, the sensation of pricking in the finger will arise just as distinctly as before. Or let a walking-stick be held firmly by the handle, and its other end be touched, and the tactile sensation will be experienced as if at the end of the stick, where, however, it plainly cannot be. It is the mind alone which feels, but which, by a peculiar faculty of localisation or extradition, seems to remove a feeling exclusively its own, not only to the outside of itself, but to the outside also of the walls of its fleshly tenement. And as it is with pain or touch, so it is with every sensation with which any of the so-called secondary qualities of matter are identical. If I look at, or smell, or taste a blood orange, the sensation of colour, or scent, or flavour I receive is entirely and exclusively my own, the orange remaining quite unconscious of its own redness, or fragrance, or sweetness, and not, indeed, possessing in itself any real qualities of the kind. For to take redness as an example; how does the sensation of it or of any other colour arise? The waves of a certain very attenuated medium, the particles of which are vibrating with vast rapidity but with very different velocities, strike upon an object and are thrown off in all directions. Of the particles which vibrate with any particular velocity, some are gathered by the

optical apparatus of the eye, and deflected so as to impinge on the retina and on the fibres of the optic nerve therewith connected, producing in these fibres a change which is followed by other changes in the brain, which, again, by virtue of some inscrutable union between the brain and the mind, create a feeling or consciousness of colour. What the particular colour shall be, depends either on the rate of motion in the vibrating medium or on the character of the retina; and if, while the former remained the same, the other were to be altered, or if two persons, with differently formed retinas, and one of the two colour-blind, were to be looking, what had first seemed red might now seem green, or what seemed red to one spectator might seem green to the other. But as the same object cannot itself be both red and green at the same time, it follows that what are called its redness and greenness are not in it, but in the spectator. Similarly, the sounds which an object appears to give forth neither are nor ever were in it: they originate in the mind of the hearer, and have not, and never have had any existence elsewhere. 'If the whole body were an eye, where,' asks St. Paul, 'were the hearing? If the whole were hearing, where were the smelling?' and Professor Huxley more than meets the drift of the Apostle's questions by pronouncing it 'impossible to imagine but that if the universe contained only blind and deaf beings, darkness and silence would reign everywhere.'

And as with the secondary qualities of matter, so, on the same showing, must it be with the primary. If colour, taste, scent, and the like, exist nowhere but in the mind, so neither do extension, solidity, and the like. If the former could not exist unless there were intelligent minds to perceive them, then neither could the latter. For, by

extension and its cognates, we understand simply relations which we conceive to exist between certain qualities of objects identical with certain of our own visual and tactile sensations, or between these and our consciousness of muscular effort; but inasmuch as all sensations and all consciousness are purely mental, and exist nowhere but in the mind, it follows necessarily that ideas of relation between different sensations, or between sensations and consciousness, must also be purely mental, and non-existent save in the mind. All the qualities of matter, therefore, primary as well as secondary, are alike conceptions of the mind, and consequently could not exist without a mind for them to be conceived by and to exist in. But if the qualities did not exist, then matter, which cannot be conceived otherwise than as an assemblage of qualities, could not exist either. Wherefore in respect of matter itself, as well as of the qualities of matter, *esse* is *percipi*, essence is perception, to be is to be perceived. Wherefore, finally, if there were no mind to perceive matter, matter could not exist. Q. E. D.[1]

Although in the foregoing summary of an argument to which not Berkeley and Huxley alone, but others of the deepest and acutest thinkers that this country has produced, have contributed, I have strenuously laboured to state all its points as convincingly as the obligations of brevity would permit, I am not myself by any means convinced by it. On the contrary, although to say so may seem to imply a considerable overstock of modest assurance, still I do say that whatever portion of it is sound

[1] Lay Sermons, xiv. 'On Descartes' Discourse;' also an article by Professor Huxley, on 'Berkeley and the Metaphysics of Sensation,' in 'Macmillan's Magazine' for June, 1871.

is irrelevant, and that whatever portion is relevant is not sound. So much of it as relates to the nature of the qualities of matter, is, however interesting or otherwise important, very little, if at all, to the purpose. No doubt if I prick my finger with a needle, or—to take in preference an illustration employed by Locke—if my fingers ache in consequence of my handling snow, it would be supremely ridiculous to talk of the pain I feel being in the snow; yet not a whit more ridiculous than to call the snow itself white or cold, if, by so speaking, I mean that anything in the slightest degree resembling my sensation of either snowy whiteness or snowy coldness resides in the snow itself. And as of coldness and whiteness, so of all the other so-styled secondary qualities. If I smell a rose, or listen to a piano, the rose or the piano is quite insensible to the scent or sounds by which my sense is ravished. And of primary qualities, also, precisely the same thing may with equal confidence be alleged. A stone which I perceive to be large, round, hard, and either rotating or motionless, has no more perception of its own extension, figure, solidity, motion, or rest than a snowball has of its colour or temperature. But all this, though perfectly true, has nothing to do with the question, which is not *what* qualities of matter are, but *where* they are, and whether they can exist anywhere but in mind; and this question, I submit, is distinctly begged by those who assume, as is done throughout the reasoning under examination, that our *sensations* with regard to material objects, and the *qualities* of those objects, are synonymous and convertible terms. Incontestably, sensations are affections of the mind which neither have nor can have any existence outside the mind. If, then, the qualities of objects are identical with the sensations which arise in the mind con-

cerning those objects, why, of course, the qualities likewise can exist nowhere but in the mind. On narrowly scrutinising, however, the supposed identity, we shall find that it involves somewhat reckless confusion of diametrical opposites. When I look at or smell a rose, or eat a beefsteak, or listen to a piano, the sensations which thereupon arise within me, whether immediately or subsequently, either are the results of my seeing, smelling, eating, or hearing, or they are not. To say that they are not is equivalent to saying that an object need not be within reach of the perceptive faculties in order to be perceived; that I may see or smell a rose, though there be no rose to be seen or smelt; may dine sumptuously off empty dishes, and be raised to the seventh heaven of delight by the audible strains of a music which is not being executed. *Fortunati nimium*—only too lucky would mankind be, did this turn out to be a correct theory, affording as it would a solution of every social problem, and serving as a panacea for every social evil. Psychology would then be the only science worth attention, for of whatever things proficiency in that branch of study had qualified any one to form mental images, of those same things would he simultaneously become possessor in full property. Whoever had succeeded in training himself to imagine vigorously might at once have, do, or be whatever it pleased him to imagine, becoming *ipso facto*, as the Stoics used to say an acquirer of virtue does, 'rich, beautiful, a king.' Woe betide any one, however, who, as long as the cosmical constitution remains what it is, shall attempt to put the theory into practice, and desisting from all those animal functions, involving intercourse with a real or imaginary external world, which are vulgarly supposed essential to animal

existence, shall obstinately restrict himself to the sensations which he believes the mind to be, without any such intercourse, capable of creating for the body's sustenance and delectation. The physical extinction inevitably consequent on such devotion to principle would speedily render all the devotees physically incapable of testifying in behalf of their peculiar opinion, and, clearing them away, would leave no witnesses surviving but such as were signifying by deeds if not in words their hearty adherence to the popular belief. Practically, then, there may be assumed to be entire unanimity of assent to the truism that for our senses to be affected by the presence of external objects, the objects must needs be present to affect them. On all hands it is in effect admitted that in some mode or other external objects exist, but if so, and if the sensations resulting from operations performed by the bodily organs with external objects would not have resulted unless the objects had been present to operate or to be operated upon, clearly there must be resident in, or inseparably bound up with, the objects a power or powers of producing sensation in conscious mind. But the power of producing sensation, and sensation itself, are not one and the same thing, but two separate and distinct things, intrinsically distinct and locally separate. The feeling, agreeable or painful, according to its intensity, which heat occasions, is not the same thing as the heat by which it is occasioned. The twofold taste, sweet to a healthy, bitter to a distempered palate, of one and the same aliment, cannot be identical with the single property of the aliment whereby the taste is produced. In the sense of seeming red to a spectator with normally constructed eyes, and green to one who is colour-blind, a ruby or a Siberian crab is at once

both red and green, but the two colours which it causes to be perceived cannot be identical with the peculiar structure, or whatever else it be, whereby the ruby or Siberian crab communicates to circumambient ether the one self-same motion that terminates in different impressions on differently constructed eyes. In these and in all cases of the kind the feeling is in the mind, the source of the feeling in matter. The one is a perception, the other a quality, and to mistake the quality, not merely for a perception, but for the very perception to which the quality gives rise, and to infer thence that the quality must likewise be in the mind, is an instance as glaring as can well be imagined of that most heinous of logical offences, the confounding of cause with effect.

By what steps Berkeley was led, and has since led so many after him, into so grave an error, he has himself acquainted us. Thus it is that he argues: By sensible things can be meant only such as can be perceived immediately by sense: and sensible *qualities* are of course sensible *things*. But the only perceptions of sense are sensations, and all perceptions are purely mental. Wherefore, sensible qualities being, as such, perceptible immediately by the senses, must be sensations, and being sensations must be perceptions, and being perceptions they are of course purely mental, and existent nowhere save in the mind. Carefully, however, as Berkeley fancied he was picking his way, he really had tripped, and that fatally, at the second step. He calls the qualities of objects *sensible* things; but sensible they are not according to his definition, for they are not capable of being immediately perceived by the senses. It is not sense which perceives, but reason which infers them. The senses, as

Berkeley elsewhere repeatedly and earnestly insists, receive nothing from objects but sensations, and these they communicate to the mind without accompanying them by the slightest hint as to whence they originally came. The senses suggest nothing as to any qualities resident in or appertaining to an object corresponding with the sensations derived from the object. The existence of such qualities is an inference of reason which, taking for granted that sensations, in common with all other occurrences, must have causes, and observing that certain of them commonly occur in the presence of certain objects, and never occur in the absence of those objects, infers that the causes of the sensations must exist in the objects. To the causes thus inferred the name of qualities is given, to distinguish them from the sensations whereof they are causes; and the Berkeleian transgression consists in overlooking the distinction between things so diametrically opposite.

By the commission of such a sin the most powerful intellect becomes inevitably committed to further enormities. Except by neglecting to distinguish between sight and hearing, the effects, and light and sound, their respective causes, it would surely have been impossible for Professor Huxley to come to the strange conclusion that if all living beings were blind and deaf, 'darkness and silence would everywhere reign.' Had he not himself previously explained that light and sound are peculiar motions communicated to the vibrating particles of an universally diffused ether, which motions, on reaching the eye or ear, produce impressions, which, after various modifications, result eventually in seeing or hearing? How these motions are communicated to the ether matters not. Only it is

indispensable to note that they are not communicated by the percipient owner of the eye or ear, so that the fact of there being no percipient present cannot possibly furnish any reason why the motions should not go on all the same. But as long as they did go on there would necessarily be light and sound; for the motions are themselves light and sound. If, on returning to his study in which, an hour before, he had left a candle burning and a clock ticking, Professor Huxley should perceive from the appearance of candle and clock that they had gone on burning and ticking during his absence, would he doubt that they had likewise gone on producing the motions constituting and termed light and sound, notwithstanding that no eyes or ears had been present to see or hear? But if he did not doubt this, how could he any more doubt that, although all sentient creatures suddenly became eyeless and earless, the sun might go on shining, and the wind roaring, and the sea bellowing as before?

Akin to the inadvertence which, as I presume to think, has led Professor Huxley thus to misconceive *secondary* qualities, is an inattention to the differences between our ideas, or mental pictures, and the originals whereof those pictures are copies, which seems to me seriously to vitiate his reasoning with regard to *primary* qualities. With admirable perspicuity he shows [1] how it is that our notions of primary qualities are formed; how the mind, by *localising* on distinct points of the sensory surface of the body its various tactile sensations, obtains the idea of extension, or space in two dimensions, of figure, number, and motion: how the power, combined with consciousness of the power,

[1] Article on 'Berkeley and the Metaphysics of Sensation,' in 'Macmillan's Magazine' for 1871, pp. 152 et seq.

of moving the hand in all directions over any substance it is in contact with, adds the idea of geometrical solidity, or of space in three dimensions: how the ideas thus formed with the aid of the sense of touch are confirmed by, and blended with, others derived from visual sensations and muscular movements of the eye: and, finally, how the idea of mechanical solidity, or impenetrability, arises from experience of resistance to our muscular exertions. All these details, however, interesting as they are, are nevertheless quite out of place. What we are at present concerned with is the nature of the things themselves, not the nature of our knowledge of them. No question that this latter is purely mental. If figure, motion, and solidity were really, as Professor Huxley says, each of them nothing but a perception of the relation of two or more sensations to one another, no question but that, since the mind is the sole seat of perception, they could exist nowhere else. But if all these suppositions be incorrect, if, as we have seen, there be in matter and apart from mind, potentialities of producing sensations, it follows that, in matter, and outside of mind, there must be relations between different potentialities, and there must, moreover, be limits to, and there may be changes in, those relations. Wherefore, since there is in matter a potentiality of imparting to the mind those sensations whence it derives its ideas of place and distance, and since figure is but a 'limitation of distance,' and motion but a 'change of place,' it necessarily follows that there is in matter a potentiality of conveying to the mind those sensations whence it derives its ideas of figure and motion. And a similar remark applies equally to solidity, and to every other so-called quality of matter. All of them are sub-

stantive potentialities of producing in the mind those sensations whence our ideas of themselves (the qualities) are derived. No doubt all these qualities would be *inconceivable* in the absence of a mind by which they might be *conceived*, but it is not necessary that, in order to *be*, they should be *conceived*. In discussions of any abstruseness we cannot be too precise in our use of words, and we shall inevitably be going astray here if we allow ourselves for a moment to forget that a quality and the conception of that quality are not one single thing, but two things. Can it be seriously supposed that if all the conscious creatures, of every description, by which the universe is peopled, were to fall temporarily into complete stupor, the material universe would, at the commencement of the trance, be deprived of its extension, solidity, figure, and all its other constituent properties, recovering them again as soon as its inhabitants woke up again? Can it be doubted that, on the contrary, all potentialities resident in its material composition would pursue the even tenor of their way just as if nothing had happened; performing, during the temporary absence of external percipient minds, precisely those operations which, as soon as consciousness returned to those minds, would be followed by the perceptions of sight, hearing, and touch? But if so, then plainly it is exceedingly derogatory to matter to charge it with such absolute dependence on external support that its very being consists in being perceived from without. That matter cannot exist without mind I cheerfully admit, or rather most earnestly affirm, proposing presently to explain in what sense I make the affirmation. Meanwhile let it suffice to have ascertained that the mental service with which matter cannot dispense, whatever else it be, is at

any rate not, as the whole Berkeleian school so positively insist, that of mental testimony to its existence.

Let us pause here for a moment to report progress. We have seen, on the one hand, that unless mind and matter have been eternally coexistent, mind must have preceded matter, and that it is idle, therefore, to expect, by any researches into matter, to discover how mind (or life) originated. We have seen that from a materialism which represents mind as in any sense a property or product of matter there is no possible outlet to an idealism which represents matter as owing its being to mind. To see this is simply to see that the builder of a house cannot possibly have been born in the house he has himself built. On the other hand, we have seen that the idealism which represents being or existence as consisting of perception is utterly incompatible with materialism of any sort or kind, unless, indeed, with a materialistic nihilism wherein would be no room for a solitary molecule, still less for any molecular structure, and least of all for that motion of molecular structures into which consistent materialists are logically bound to attempt to resolve all natural phenomena. We have, in short, seen that materialism and idealism, in the senses in which those terms are commonly used, are utterly incapable of amalgamation, or indeed of even being harmoniously approximated, without being first deprived of all the characteristic traits which at present entitle them to their distinguishing appellations.

To which of the two belongs the larger share of blame for this implacable hostility is easily determined. Materialism, in dealing with mental phenomena, begins by setting chronology at defiance; but between idealism and the phenomena of matter there is no such aboriginal

incongruity. From principles common to every form of idealism a theory is deducible which, while frankly acknowledging the reality of matter, may, with perfect consistency, maintain that reality to be mental—although mental in the sense of being, not a perception by, but a metamorphosis of, mind. Of such a theory the outlines seem to me to have been sketched, and the foundations partly laid, by Descartes, and it cannot be otherwise than interesting to inquire in what manner and how far so consummate an artificer advanced in the work, and where and wherefore he suddenly stopped short in it.

When Descartes, after convincing himself of the hollow pretentiousness of most human knowledge, proceeded to dig away the accumulated drift and sand of ages in quest of any clay or rock there might be below, the first indubitable verity he came to was thought, about whose reality there could, as already explained, be no possibility of doubt, inasmuch as any doubt concerning it, being itself thought, would be but an additional proof of it. On the bit of firm ground thus thoroughly tested, he proceeded to place a formula not less carefully verified, his famous 'Cogito, ergo sum'—'I think, therefore I am.' By many of his followers, however, this second verification of his is deemed to be by no means so satisfactory as it was by himself, Professor Huxley more especially taking vehement, though, as I make bold to add, somewhat gratuitous, exception to every single word of the most celebrated of Cartesian formulæ. No doubt the premiss of the formula assumes the conclusion, but it likewise includes as well as assumes it. No doubt, since 'I think' is but another way of saying 'I am thinking,' to say that 'I think' is to assume that 'I am;' nay, the same thing is equally assumed by

the mere introduction of the pronoun 'I.' But Descartes was fully warranted in taking for granted the truth of his conclusion. For by previously showing incontestably that thought and consciousness are real existences, he had completely proved the premiss wherein his conclusion is included. What though, as Professor Huxley suggests, 'thought' may possibly 'be self-existent,' 'or a given thought the result of its antecedent thought, or of some external power'? Be thought what else it may, it must needs be, also, either an affection or an operation; if not performed, it must be felt; there must needs be, therefore, something by which it is either performed or felt, and that something cannot possibly be other than a thinking and conscious thing. As surely as thought is, so surely must there be a thinker. This is, in substance, affirmed even by many who deny it in terms, and Hume, in particular, when saying, as he somewhere does, that 'all we are conscious of is a series of perceptions,' denies and affirms it at one and the same time. For how can there be perception without a percipient? or how consciousness without a conscious entity? or how can that entity be conscious of feeling without being simultaneously conscious that it is itself which feels, without knowing, consequently, that it has a self, or without being warranted, if it possess the gift of speech, in declaring, in words even more emphatic than those of Descartes, 'I *myself* am'? And how, if these questions do not admit of reply, can Professor Huxley be warranted in declaring self and non-self to be mere 'hypotheses by which we account for the facts of consciousness,' and adding that of their existence we 'neither have, nor by any possibility can have' the same 'unquestionable and immediate certainty as we have of the states of consciousness which we

consider to be their effects'? Surely the existence of self is one of the most direct and immediate subjects of consciousness; yet it does not depend for evidence on consciousness alone, but is as unanswerably demonstrable as that two straight lines cannot enclose space or that parallel lines cannot meet, or as any other mathematical negation. No ratiocinative deduction can be more incontestable than that, since *I* have thoughts, there must be an *I* to have them.

Whoever thus assures himself of the existence of self obtains simultaneously equal assurance of the existence of non-self; for feeling that his conscious self is not boundless, but is confined within limits, he cannot doubt that beyond those limits there must be space, and, receiving continual sensations from without, he perceives that there are, in external space, potentialities of imparting sensations. Thus, I repeat, Descartes in laying down the first principles of his philosophy created an intellectual basis for the external universe. Unfortunately, however, instead of proceeding to place its proper superstructure on the foundation thus laid, he wilfully stepped aside from what he had just pronounced the only firm ground in existence, and undertook to raise a rival edifice on part of the formless void beyond. Deeply struck by the grand discoveries of his illustrious contemporaries, Galileo and Harvey, and thence discovering for himself that the phenomena of remotest worlds and also the involuntary phenomena of our own bodily frames take place in accordance with forces of uniform operation, he leaped suddenly to the conclusion that those forces are purely mechanical. The circulation of the blood, he says, 'is as much the necessary result of the structure of the parts one can see in the heart, and of the heat which one

may feel there, and of the nature of the blood which may be experimentally ascertained, as is the motion of a clock the result of the force, situation, and figure of its wheels and of its weight.' Nor, in his view, does the heart, by virtue of its structure and composition, merely cause the blood to circulate. 'It also generates animal spirits,' which, 'ascending like a very subtle fluid, or very pure and vivid flame, into the brain as into a reservoir, pass thence into the nerves, where, according as they more or less enter, or tend to enter, they have the power of altering the figures of the muscles into which the nerves are inserted, and of so causing all the organs and limbs to move.' He puts the case thus: Even as the ordinary movements of a water-clock or of a mill are kept up by the ordinary flow of the water, and even as 'in the grottoes and fountains of royal gardens, the force wherewith the water issues from its reservoirs suffices to move various machines, and even to make them play instruments or pronounce words according to the different disposition of the pipes which lead the water'—even so do pulsation, respiration, digestion, nutrition, and growth, and 'other such actions as are natural and usual in the body,' result naturally from the usual course of the animal spirits. Moreover, even as intruders upon the waterworks aforesaid unconsciously by their mere presence cause special movements to take place, even as, for example, 'if they approach a bathing Diana, they tread on certain planks so arranged as to make her hide among the reeds, and, if they attempt to follow her, see approaching a Neptune who threatens with his trident, or rouse some other monster who vomits water into their faces'—even so do external objects, by their mere presence, act upon the organs of sense; even so do 'the reception of light,

sounds, odours, flavours, heat, and such like qualities in the organs of the external senses, the impression of the ideas of these in the intellect, the imagination, and the memory, the internal movements of the appetites and passions, and the external movements which follow so aptly on the presentation of objects to the senses, or on the resuscitation of impressions by the memory,' yea, even so do all these 'functions proceed naturally from the arrangement of the bodily organs, neither more nor less than do the movements of a clock or other automaton from that of its weights and its wheels, without the aid of any other vegetative or sensitive soul or any other principle of motion or of life than the blood and the spirits agitated by the fire which burns continually within the heart, and which differs in no wise from the fire existing in inanimate bodies.'[1]

Quite fairly it may be urged that the writer of passages like these would, if writing in modern language, and with the aid of modern conceptions, have expressed himself much as Professor Huxley does when, declaring that the circulation of the blood and the regular movements of the respiratory, alimentary, and other internal organs are simply 'affairs of mechanism, resulting from the structure and arrangement' of the bodily organs concerned, from 'the contractility of those organs, and from the regulation of that contractility by an automatically acting nervous apparatus;' that muscular contractility and the automatic activity or irritability of the nerves are 'purely the results of molecular mechanism;' and that 'the modes of motion which constitute the physical bases of light, sound, and heat are transmuted by the sensory organs into affections of

[1] The quotations, of which those in the text are abridgments, will be found in 'Lay Sermons,' xiv. pp. 364–7.

nervous matter,' which affections become 'a kind of physical ideas constituting a physical memory,' and may be combined in a manner answering to association and imagination, or may give rise to muscular contractions in those reflex actions which are the mechanical representatives of volition.' Quite fairly may a doctrine, capable of being thus translated, be described as leading 'straight to materialism.' Quite justly may its author be claimed by Huxley as joint professor of a materialistic creed. True, Descartes lodges within his human mechanism a *chose pensante* or rational soul, whose principal seat is in the brain, and who is treated as corresponding to a hydraulic engineer stationed in the centre of waterworks for the purpose of increasing, slackening, or otherwise altering their movements. But this rational soul is a very needless appendage to either the Cartesian or the Huxleian system, wherein, if its post be not a literal sinecure, there is, at any rate, little or nothing for it to do which might not quite as well be done without it. The hydraulic engineer, sitting in his central office, has to wind up the whole machinery from time to time, and to turn now this tap, now that, when he wishes to set this or that particular machine in motion. But, as no one need be told, our *chose pensante* has nothing to do with the winding up of our digestive, circulatory, or respiratory apparatus; and so far from internally arranging those other internal organs from the mere arrangement of whose parts, according to Descartes, the reception, conversion, and retention of sensations, and the movements, whether internal or external, thereupon consequent, naturally proceed, or from regulating the molecular mechanism, whence, according to Professor Huxley, results the automatic nervous activity which, in his opinion, governs

the movements of the limbs not less absolutely than those of the intestines, it, nine times out of ten, neither knows nor suspects that any such organs or mechanism exist. If the functions above attributed to the human frame could be shown really to belong to it, pure, not to say crass, materialism, would require no further proof. Those particular functions undoubtedly take place without the cognisance of that particular sensitive soul which we call ourself, so that if no other sensitive soul take cognisance of them, they must needs be, not simply automatic performances, but performances of an automaton of such marvellous powers as to be quite equal to the performance likewise of whatever human operations are vulgarly classed as mental. Assume, however illogically, that motion is a function of matter, and from that premiss, whether true or false, the conclusion that thought likewise is a function of matter may be quite logically deduced. 'That thought is as much a function of matter as motion is' must needs be conceded to Professor Huxley, who, therefore, if he could show that motion is really such a function, would be fully justified in adding, that 'the distinction between spirit and matter vanishes,' that 'we lose spirit in matter.'

Undeniably, then, of the Cartesian philosophy one moiety is, as Professor Huxley says, materialistic; but from the self-contradictions inseparable from every species of materialism the Cartesian variety is, of course, no more exempt than any other, and it has besides one self-contradiction peculiar to itself. A clock's pendulum vibrates, and its hands move, not simply by reason of the situation and figure of its weight and wheels, but also because some intelligent person, by winding up the clock, has communicated an impulsive force to the weight and wheels.

Waterworks perform all sorts of antics, not solely because the pipes are skilfully constructed and arranged with a view to such end, but because also an intelligent engineer has turned running water into the pipes. But the only intelligent agent to whom Descartes allows access to his corporeal machinery is one who not only has no notion how to apply a moving force except to some few portions of the machinery, but with regard to the other portions has most likely no suspicion that they even exist. But how in the absence of some other intelligence, of some other 'vegetative or sensitive soul or principle of motion or of life,' is it possible for the inert and inanimate heart to generate animal spirits?—how is it possible for death thus to give birth to life?—or, if the generative faculty be supposed to be the necessary result of a particular molecular structure, how is it that when the animal spirits become from any cause extinct, they are not immediately regenerated by the same molecular structure? or rather, how is it possible for animal spirits to become extinct as long as the molecular structure of which they are necessary concomitants remains unaltered? In these questions the old insuperable difficulties reappear in new forms, but on these we need not dwell. Apart from anti-materialistic arguments of general applicability, there is a mode of refutation specially adapted to the Cartesian form of materialism, which, besides flatly contradicting itself, contradicts not less flatly a twin system of unimpeachable veracity. Truth cannot be opposed to truth:—a doctrine cannot be true, even though propounded by Descartes and Huxley, if it conflict irreconcileably with doctrines which Descartes and Huxley have unanswerably demonstrated. Now one-half of Cartesian philosophy shows conclusively that amidst the countless infinity of human notions, the

one single and solitary certainty of independent and self-evident authority is the existence of thought, and nothing else whatever, therefore, can be entitled to be regarded as absolutely certain which cannot be shown to rest mediately or immediately upon this. One thing which can, by strictest logical process, be shown so to rest, is the existence of a thinking self; and another is the existence of a non-self or external universe; but of this external universe we know scarcely anything beyond the bare fact that it exists. We know that outside the thinking self there are potentialities capable of somehow or other communicating sensations to the thinking self; but of the nature of these potentialities our senses teach us absolutely nothing, and the few particulars that reason is able to discover, are, with one single though very momentous exception, to which we are rapidly approaching, purely negative. We do know to a certain extent what qualities of objects are not. We know that they are not and cannot be in the least like the sensations which we call by the same names. We know that what we call the whiteness and coldness of snow or the hardness and weight of marble, can no more resemble the feelings we receive from looking at or handling snow or marble than the mental exaltation produced within us on hearing one of Bach's fugues is like the organ on which, or the organist by whom, it is played. We know that of the pictures which our senses form for us not one can possibly be a correct likeness. We know that what we fancy we see in matter we do not see; that what we seem to feel we do not feel; that the apparent structure and composition of matter cannot therefore possibly be real. To this conviction we are irresistibly drawn by a chain of idealistic reasoning of which Descartes forged the first

link, and every link of which will stand the severest strain. But if this be the teaching of an idealism occupying as its base the only morsel of solid ground to be found in the mental universe, what scrap of footing is there left for an antagonistic materialism purporting to rest on what we can see and feel of a structure and composition which, as we have just satisfied ourselves, we cannot see or feel at all?

As plainly then as one half of Descartes' philosophy is materialistic, so plainly, that half, instead of a necessary outgrowth and exact correlative of the other or idealistic moiety is, on the contrary, the latter's diametrical and implacable opponent. As plainly, therefore, as the one is true, must the other be false, and Cartesian idealism, in so far as its character has been exhibited above, has, I submit, been demonstrated to be true. The greater the pity that it was not brought to maturity by its author. In enumerating its first principles, Descartes, as I must once again observe, was forming a logical basis whereon a comprehensive and consistent conception of an external universe might forthwith have been securely deposited, had he not unluckily, instead of himself proceeding to build on his own foundations, with congruous materials, left them free for others to build upon with gold, silver, precious stones, wood, hay, or stubble, as chance might determine. May I, without presumption, hazard a conjecture as to the sort of fabric that might have arisen, if he had steadily prosecuted his original design?

At the stage which we are supposing him to have reached, very little remained to complete the work. Around man, around every individual man, or other conscious intelligence, as its centre, is ranged infinitely extended space, filled with, or, as it were, composed of

various kinds of matter, every kind and every separate portion of which is endowed with special qualities capable of communicating corresponding sensations to the central intelligence. So far all that can be predicated of any material object or portion of matter is that it is a collection of qualities; but from hence we may advance boldly to the further negative discovery that it is nothing else; that there is not and cannot be, in addition to those qualities, any substance in or to which the qualities inhere, or are in any way attached.

The absence from matter of any such substance is evidenced by the absurdity involved in the idea of its presence. Suppose the substance to exist: the qualities inherent in it must needs be as completely distinct from itself as pins are from a pincushion; the extension and solidity of an extended, solid substance can no more be identical with the substance than the nominative is identical with the genitive case. The substance, therefore, although deprived of all its qualities will still retain its essence unimpaired, will still be equally a substance, just as a pincushion continues equally a pincushion after its last pin has been abstracted. Conceive, then, all the qualities of matter to be abstracted, and consider what remains—a substance without qualities of any sort. But a substance neither solid, nor fluid, nor yet gaseous; neither coloured nor colourless; neither singular nor plural; without form and void, without even extension—what is it? not something, but nothing; a nonentity or non-existence. The qualities of matter in being removed from the substance have therefore left nothing behind, and, consequently, although carrying with them nothing but themselves, have yet carried with them all the constituents of

matter, which is thus seen to be composed exclusively of qualities without a single particle of foreign admixture. And since, moreover, the qualities of matter are clearly not themselves substances, that is to say do not themselves *stand under* or uphold anything, it follows that their compound, matter, must likewise be purely unsubstantial.

The edifice begun by Descartes has now been raised high and strong enough to have its layer of negations crowned with an affirmation of pre-eminent importance. The qualities of matter, being known only by their effects, are evidently causes: and, being causes, must necessarily be either themselves forces, or, at the least, manifestations of force; and inasmuch as force involves exertion, it cannot be inert; and inasmuch as deadness must be incapable of exertion, all force must be alive; and life without substance cannot be conceived otherwise than as some species of spirit or mind. Such therefore must be matter. Matter can be nothing else than pure spirit of some kind.

And may we not with good reason congratulate ourselves on this result of our investigations? Instead of the vision we were threatened with, of mind losing itself in matter, our eyes are gladdened with that of the converse operation, of the transmutation of matter into mind. And on no account is this metamorphosis to be mistaken for annihilation of matter, whose stolid grossness has vanished, not in order to give place to empty nominalism or to a thin mist of mere mental perceptions existing only in virtue of being perceived, but in order to reappear gloriously etherealised into living energy. By the change that has taken place, corruption has put on incorruption; the natural body has become a quickening spirit; death is swallowed up in victory. Matter reappears

converted, not into a perception of percipient mind, but into percipient mind itself; yet although thus presumably percipient of its own existence, it not the less has an existence perfectly independent of perception, either by itself or by any other intelligence.

Under what head the mind, or combination of living forces, thus constituting all matter, ought to be classed, is a question, which the imperfection of human faculties may as well be content to leave unanswered, though to its being supposed to emanate directly from the mind of Omnipresent Deity, one insuperable objection may be mentioned, which should be kept steadily in view. There are few of us who will not shrink with horror from a notion, according to which man, whenever doing as he pleases with any material object, applying it, as likely as not, to some base or criminal purpose, is disposing at his pleasure of a portion of the Divine essence: few who will not greatly prefer to believe that the vital principle which manifests itself in the form of a dunghill or of a poisoned dagger, may be, for the time, as completely individualised and separate from all other life or mind, as every human being perceives his own conscious mind or self to be. At all events, we have now reached a point beyond which it would be rash to rush hastily on. For a while we may be well content to rest where we are. That matter is nothing else but a peculiar manifestation, or avatar, of some species of mind, whatever that species be, is a proposition as demonstrably true as its converse is demonstrably false. Unless it be possible for death to give birth to life, it is impossible for living mind to be the offspring of inanimate matter; but so surely as mind is mind, and that living force alone can act either on mind or aught else, so surely

must all matter that imparts sensation to mind, be itself a species of living force and consequently a species of mind.

An unexpected conclusion this, and widely different, I confess, from that to which I was myself looking forward at the outset of the discussion ; yet, at the same time, one of which there is the best possible proof in the impossibility of conceiving its contrary. It is besides a conclusion to which not only ought Descartes in consistency to have come, but at which both Locke and Berkeley, though advancing from opposite points of the compass, did very nearly arrive ; nay, which the latter did almost touch, and must apparently have grasped, had not his hands been already full of other things. It is, moreover, one from which I do not apprehend that Professor Huxley himself will seriously dissent. Indeed, I almost hope that he may object chiefly to its having been moved by me as an amendment on his original motion, and that he may be disposed to claim it for himself as a portion of genuine Huxleyism. If so, I shall readily recognise the claim so far as to admit that things very similar to many of those said by me above had already been said by Professor Huxley; though, in justice to myself, I must add that their complete opposites had likewise been said by him. But the office which I here proposed to myself was mainly that of an eclectic, who, going over a field which another husbandman has tilled, separates the wheat from the tares, and binds up the former into shapely and easily portable sheaves ; and no more satisfactory assurance can be given of my having been usefully employed in such subordinate capacity than that Professor Huxley, who, amongst all his numerous admirers, has not one sincerer than myself, should welcome me as a coadjutor, instead of repelling me as an antagonist.

CHAPTER V.

RECENT PHASES OF SCIENTIFIC ATHEISM.

'Wonder is the basis of worship. That progress of science which is to destroy wonder, and in its stead substitute mensuration and numeration, finds small favour with Teufelsdröckh, much as he otherwise venerates those two latter processes.'—*Sartor Resartus.*

I.

By the train of thought pursued in the last chapter, we were led to the conclusion, not, indeed, that matter has no existence, but that its nature or constitution is altogether different from what is commonly supposed. The difference thus discovered does not, however, imply any corresponding difference with respect to the properties—*sensible* properties, as they are commonly called—whereby matter affects the senses. Equally, whether matter be, in all and each of its various species, inanimate, inert, passive substance, or a combination of self-acting forces—equally whether it be the author or merely the subject of whatever activity it manifests, that activity is equally manifested in certain sequences which are as unvarying as if they were prescribed by inexorable and irresistible laws, and which, indeed, by a convenient, though exceedingly treacherous metaphor, are usually styled laws—laws of Nature when spoken of collectively, laws of attraction, repulsion, gravitation, motion, heat, light, and the like, when separately referred to. Whithersoever we turn our eyes, however

closely we pry, into whatever depths of infinity we peer, we observe the most perfect harmony between structure and law, law moulding structure and structure utilising law. Afar off we descry systems upon systems, solar and sidereal, like sand upon the sea-shore for multitude, and every individual orb thereof rotating or revolving in strictest accordance with inflexible mathematical principles, and evidently owing to the previous influence of those same principles its characteristic configuration. Near at hand we discern organic forms innumerable, each with its own special arrangement of component parts admirably apt for the performance in ordinary circumstances of special functions, admirably, as circumstances change, accommodating itself by corresponding changes for continuing the same or undertaking other and equally appropriate functions, nor merely performing them all in despite of the restraints imposed by law, but availing itself of those very restraints as means and aids for their performance. Where so much aptness is, adaptation surely must have been: where arrangement is so plainly conducive to ends, the ends must surely have been foreseen, and the arrangement effected by design and according to preconceived plan. And there cannot have been design without a designer or designers: the plan cannot but have had its author or authors: nor could the plan have been executed without an artificer or artificers. Author or authors, too, artificer or artificers, be the same singular or plural, must have possessed, individually or collectively, not less of wisdom, power, and goodness than are displayed by the finished work. Now of each of these attributes, the amount to which the aspect of the universe bears witness, albeit not infinite, inasmuch as the universe

is not without imperfections, is yet indefinite; as plainly without measure as the universe is without bounds. Wherefore, not only must the universe have had an author or authors, an artificer or artificers, but his or their wisdom, power, and goodness, must, whether infinite or not, have been at least illimitable.

Such is the argument from design, and such, to my thinking, the only absolute certainties legitimately deducible from it; and although these, in comparison with the numerous probabilities ordinarily associated with them, may appear somewhat meagre, yet are they intrinsically of exceeding moment. They constitute the only basis on which any rational religion, any that appeals to the intellect as well as to the feelings, can rest securely. Whoever accepts them, by whatever other name he prefer to call himself, is essentially a theist. He only who denies or ignores them can justly be stigmatised as an atheist. Yet, although an inquiry into their soundness is thus plainly second in interest to none, it is not that in which I propose to engage at present, unless indirectly. My immediate concern is not with the strength of theism, but with the weakness of atheism, and the hollowness of the latter's dialectical pretensions. What in every form of piety is most provocative of philosophic scorn, is its forwardness of faith, its eagerness of acquiescence; but to this sort of reproach I expect to be able to show that none are more obnoxious than those very philosophers by whom it is most freely cast. That nothing is more unphilosophical than uncompromising irreligion, nothing more credulous than its credulity, no other beliefs more monstrous than those by which it strives to fill up the void created by its own unbelief: this is my present thesis, and

this I propound, not unaware what formidable antagonists I am thereby challenging, but not without something of the same confidence, and something withal of the same ground for it, as David had when, in equal strait, exclaiming, 'The Lord is on my side; I will not fear; what can man do unto me?'

Let us at the outset consider what denial of plan in the structure of the universe implies, and note, among other things signified, the following. The exact conformity on matter's part to Nature's laws, everywhere observable, and even more striking perhaps in minute details than in grandiose generalities, is purely accidental. The laws were not enacted in order to be obeyed; matter's various shapes were not given to or assumed by it in order that its obedience might serve any particular purpose. All appearances of ingenious contrivance in the collocation of elementary particles, or in the co-operation of elementary forces, are mere appearances. It was not designed that under the influence of the laws of motion, chaos should resolve itself into systems, and time divide itself into years and seasons and days and nights. It is quite unintentionally that the countless varieties of mechanism appertaining to different vegetable and animal fabrics have been rendered fit for performing those special processes which, by reason in each case of some special arrangement of parts, they actually do perform with such marvellous precision. It is a total mistake to suppose that the eye was meant for seeing, or the ear for hearing, or the heart for initiating and regulating the circulation of the blood, or nervous ramifications for receiving and disseminating sensible impressions. These various organs have been discovered to be useful, and are used accordingly; but they were not

intended to be so used, or contrived with any such view, or, indeed, contrived at all. The forces, whatever they be, and whether identical with or totally distinct from itself, whereby matter, on one supposition, acts, and, on the other, is acted upon, and by whose operation the universe and all its contents have been fashioned and are sustained, are in either case perfectly heedless and reckless forces, operating always without the slightest reference to result.

Language like this was much in vogue among the French encyclopædists of the last century. By opposing it, even Voltaire incurred the reputation of bigotry, and Hume probably had to listen to a good deal of it on that memorable occasion when, dining with Baron D'Holbach, and intimating to his host his disbelief in the existence of atheists, he was informed by way of reply that he was actually at table with seventeen members of the sect.[1] That in England, too, it was a good deal talked at about the same and a somewhat later period, may be inferred from the fact that against its teaching one of Paley's most celebrated treatises was expressly directed. Doctrine which was once so fashionable, and which even now cannot be said to be obsolete, was not, of course, without some show of reason to support it, and somewhat in this wise the chief arguments in its behalf were usually marshalled:—In order to account for actual result, there is no

[1] The story was thus told by Diderot, to Sir Samuel Romilly, when a young man:—'Je vous dirai un trait de lui, mais il vous sera un peu scandaleux peut-être, car vous autres Anglais, vous croyez *un peu* en Dieu; pour nous autres, nous n'y croyons guères. Hume dîna dans une grande compagnie avec le baron D'Holbach. Il était assis à côté du baron; on parla de la religion naturelle. "Pour les athées," disait Hume, "je ne crois pas qu'il en existe; je n'en ai jamais vu!" "Vous avez été un peu malheureux," répondit l'autre, "vous voici à table avec dix-sept pour la première fois."'—*Edinburgh Review* for January 1847.

need to imagine previous purpose. All things that exist, all events that occur, must bear to each other some relations in situation and time, which relations are not less likely to be orderly than disorderly, or, rather, indeed, are more likely to be the former than the latter. For necessarily the rarer rises above the denser; the stronger compels the weaker; that which is pushed hardest runs fastest. And even though, among organic forms, orderly and disorderly had been, by the purely fortuitous concurrence of atoms, originally produced in equal numbers, the former would be sure in the course of ages to become the more numerous, and that in proportion to the orderliness of their composition, and to their consequent suitableness for the reception and maintenance of organic life, by which they in turn would be maintained and multiplied, while less aptly organised forms, succumbing in the struggle for existence, perished and vanished away. Thus everything arranges itself—*everything*, however, being here another name for Nature, which alone does or can exist, which is all and does all; yet, though doing all things in general, does whatever it does quite unintelligently, and without the least desire of doing any one thing in particular more than another.

Though speaking of this as a show of reasoning, I would by no means be understood to consider it as merely a show. On the contrary, I must admit that it contains a modicum of reality sufficient, in my opinion, to secure the position taken up from being utterly overthrown by any direct attack not followed up by reference to a certain palpable absurdity which we shall presently perceive to be inseparably connected with the position. To so much of real reasoning as we have before us, let then all due

respect be shown. No doubt all existences must necessarily dispose themselves or be disposed somehow. No doubt all occurrences must succeed each other somehow. No doubt, either, that if the disposing or otherwise originating forces operated quite regardlessly of plan, no one disposition or succession would be a whit less possible than any other—the most symmetric or evenly graduated than the most disjointed or confused. Now although, since exertion is utterly inconceivable without volition, and since volition is equally inconceivable without consciousness, it must be impossible for any forces ever to exert themselves altogether unintentionally, it is yet perfectly possible for their exertion to have no ulterior intention beyond that of gratifying an unprospective will. This is all that one fidgetting about, as the phrase is, intends, when he has no special motive for fidgetting in any particular direction more than in any other, and similarly it may by possibility be the mere fidgettiness of Nature that gives rise to all natural phenomena. Nature, indeed, cannot, any more than any other force or combination of forces, be utterly destitute of intelligence, but its intelligence may not inconceivably be of no higher sort than that which the sensitive plant exhibits or mimics. Nature cannot exert itself quite unconsciously, nor consequently quite unintentionally, but its exertions, though not unintended, may possibly not be intended for any result. It must be admitted, then, that, so far, no reason has appeared why the force or forces by which the universe was originally moulded, may not, as contended, have been perfectly heedless and reckless; may not, without the least premeditation or the slightest view to any ulterior object, have produced certain phenomena in those particular sequences to which the name of natural

laws has been given; and may not, with the same total absence of purpose, have adopted certain other courses of action which, very fortunately, though quite undesignedly, have resulted in the production of endless varieties of mechanism, most of them of marvellously intricate and complex structure, and all and each of them of structure marvellously suitable for performing, in co-operation with Nature's laws, functions of an utility as varied as their structure. And what any forces have been equal to do once, those same forces, if remaining unimpaired, must be equal to repeat times without number. Although, if you found your opponent at dice invariably throwing double-sixes, you might feel confident that his dice were loaded, your confidence, unless otherwise corroborated, would not amount to entire certainty. With unloaded dice there would be nothing strange in double-six being thrown once; but, if once, why not twice running? and if twice, why not three, four, or a million times running, provided that the thrower's strength held out so long? No one of the separate throws, from the first to the millionth, would be attended with more difficulty than any other. Whoever made the first might with no greater effort make any one, and therefore every one, of the rest. In the fact of his having commenced the series there would be proof of the possibility of his completing it. In like manner, if it be not inconceivable that Nature's forces may once, by a single unpremeditated exertion, have bestowed on the universe its actual constitution, it is not inconceivable that by continual repetition of similarly unpremeditated exertions, they may have ever since maintained that constitution. In this supposition there is nothing patently absurd. It is perfectly legitimate to suppose that any event or

combination of events, not demonstrably impossible, may have occurred in the absence of complete certainty that they have not occurred. It may not be illegitimate, therefore, to suppose that all phenomena of the description termed physical, and all repeated sequences of such phenomena, may have occurred, not causally, but casually—that it may have been a fortuitous concourse of atoms which originally established the existing economy of the universe, and an uninterrupted succession of similar fortuitous concourses that has ever since maintained that economy. That supposition, I repeat, involves no absolute absurdity. What however is, if not absurd, at any rate egregiously unscientific and most unphilosophically credulous, is to treat the supposition as a certainty, notwithstanding that the chances against its representing real facts are as infinity to infinitesimality; for not less is the preponderance of improbability that the laws of nature were not intentionally prescribed, and that the wondrously complex and wondrously useful harmony that has been established between organic structure and natural law was not designedly established. In considering this point, it will be convenient to take law first.

Inasmuch as, on the assumption that all phenomena of inorganic matter are effects, purely unpremeditated, of Nature's capricious restlessness, there would of course be no more reason why any one such phenomenon than any other should not at any time occur, there would equally of course on the same assumption, be no more reason why it should. An infinity of phenomena being at all times equally possible, the chances against any one being, on any occasion, preferred to all the rest, would be infinity less one. Against any particular sequence of phe-

nomena they would be as infinity less one multiplied by the number of phenomena composing the sequence, and against one or more repetitions of the same sequence they would be the same multiple of virtual infinity multiplied by the number of repetitions. Against perpetual repetition, they would, as it were, be virtual infinity multiplied by infinity. On the assumption stated, an apple loosened from the parent stem, might quite possibly fall to the ground, but quite as possibly might remain suspended in mid air, or rise straight upwards, or take any one of the innumerable directions intervening between zenith and nadir, travelling too, unless interrupted, in the direction selected for any period, from a single moment to endless ages. Experience, however, teaches that an apple or any other body of greater specific gravity than air, does invariably, when deprived of support, fall straight downward, such downward movement being part of one of those sequences of phenomena which are classed under the head of gravitation. Now, to assert that this, or any other, and consequently every other, specimen of gravitation, cannot possibly have been unpremeditated would no doubt be unwarrantable. No doubt there is one solitary, one infinitesimal chance that the force whose action results in gravitation may, when producing that result, be acting with as little choice of direction as a fidgetty man makes when moving his arms or legs about for no better reason than that he will not take the trouble to keep them quiet. Only, as on the supposition that the force did not select its course, the chances against its always taking the same course would be infinity less one indefinitely multiplied, the probability that it does select must needs be the same indefinite multiple of virtual infinity. Not less than

this is the preponderance of probability that the invariably recurrent sequences of phenomena which we are in the habit of referring to gravitation, are premeditated, and that the law of gravitation has, so to speak, been wittingly ordained. And in this respect all invariable sequences of phenomena, otherwise termed laws of nature, stand plainly in the same category. One solitary and infinitesimal unit is the sole deduction to be made from what would otherwise be infinite certainty, that the assumption we started with is false, and that all invariable sequences are premeditated, all the laws of nature enacted by a lawgiver who intended what he was enacting.

Intention, however, is not quite the same thing as design. It is possible for action to be at once intentional and purposeless. If a man, taking regularly a constitutional walk, is observed always to take the same road, and to stop exactly at the same point, there can be no reasonable doubt as to his intention to walk just so far and no farther; but it does not follow that he has any object in walking which he supposes would not be equally served by his walking a few paces more or less. Similarly whatever be the certainty that the laws of nature have been intentionally established, there is in that certainty no proof of their having been established for any purpose beyond that of gratifying some whim or humour of the lawgiver. For indications of design in the universe we must look rather to organic than to inorganic nature, rather to structure than to law. We shall find applying to the former the same reasoning as to the latter, and likewise some more besides.

Inasmuch as, of the innumerable combinations of which the elements or elementary forces are susceptible, each and

every one, in the absence of any preference for one over another on the part of the volition on which the occurrence of all depends, would have equal chances of occurring, the chances against the occurrence at any particular time of any particular combination would be as the number, or rather as the innumerosity, of all the rest to one. Such, in the absence of any intentional action on Nature's part, would be the odds against any one single occurrence of any one elemental combination. Against the perpetual repetition of the same combination the odds would be the same innumerosity innumerable times multiplied. Nevertheless there actually is everlastingly recurring, not simply one single specimen, but an innumerable multitude of the same elemental combinations. Whatever were the combinations necessary for producing all the existing organisms, vegetable and animal, with which our earth swarms, the constant recurrence of those same or nearly the same combinations is indispensable both for the maintenance of the organisms during life and for the production of successors to them; and such constant recurrence is plainly going on. The chances then against its being unintended must be the aforesaid multiple of innumerosity. But this is not all. The multiple in question represents the chances against perpetual repetition of any set whatever of elemental combinations, but about the actually recurrent set there is this peculiarity, that it produces and maintains innumerable organisms or machines, which—inasmuch as all of them are marvellously fit, by reason of their respective specialities of structure, for performing different obviously useful purposes—have all the appearance of having been expressly constructed for the performance of those purposes. If these appearances of

adaptation were fallacious, if the apparent utility were undesigned, the chances against the perpetual recurrence of so singularly useful, rather than of some totally useless, set of combinations would be a multiple of innumerosity similar to that which has clearly been shown to represent the preponderance of probability against the constant repetition of any set of combinations whatever, whether useful or useless. If, then, it were permissible to use so extravagant an hyperbole to indicate an idea of multitude to which it is not in the power of words to give adequate expression, it might be said that while the chances against Nature's habitual action being *unintentional*, or the result as it were of mere fidgettiness or restlessness, are an indefinite multiple of infinity, the chances against its being *purposeless* and *undesigned*, without view to end or object, is the same multiple doubled.

Still, in order to give the solitary and infinitesimal chance on the other side its full due, let us confess it to be as yet not quite conclusively demonstrated that the actual order of inorganic, and the actual constitution of organic, nature are results of uninterrupted repetition of one and the same purposeless volition, and of the same purely fortuitous concourses of atoms. Let us admit it to be not absolutely impossible, not utterly inconceivable, that vegetable and animal organisms were not contrived such as they are with any view to their becoming habitations of vegetable and animal life, but that having been accidentally discovered to be fit to be lived in, they have been taken possession of by life and inhabited accordingly; that, similarly, the wondrously complex and varied mechanisms of which most organisms are composed were not made to be used, but are used because certain uses have been acci-

dentally discovered for them—the eye, for instance, to take one example out of myriads not less remarkable, not having been meant to be seen with, but being employed for seeing because, by a happy coincidence, the particles composing it have got to be collocated in such wise that a picture of whatever is opposite to it is formed upon the retina, and is thence by a nervous concatenation transmitted to the brain. Although, if the most consummate skill, in comparison with which that displayed in the fabrication of Mr. Newall's telescope were downright clumsiness, had striven to devise a seeing apparatus, capable of exact self-adjustment to all degrees of light, all gradations of distance, all varieties of refrangibility, it could not have adopted a contrivance more exquisitely ingenious, or evincing more minutely accurate knowledge of the most secret laws of optics, than the mechanism of the eye apparently betokens, let it still be admitted to be not quite beyond the bounds of possibility, that not skill but the blindest and densest ignorance may have presided over the whole operation. But even though the modes of procedure involved in these admissions were not quite impossible or inconceivable, belief in them would, I repeat, be palpably irrational, and that almost to the last degree. The nearest approach to a reason that can be imagined for it is the *Credo quia incredibile est* to which philosophers in despair have occasionally been known to resort. *Dudum in scholis audiveram*, says Descartes, *nihil tam absurdè dici posse quod non dicatur ab aliquo Philosophorum.* In his early college days he had heard that nothing so absurd can possibly be said, but that some philosopher or other may say it. Such words are too hard for me. I make as yet no charges of

absurdity, contenting myself for the moment with saying that no notion can be too unscientific to be adopted by those scientific men who, gratuitously running counter to the strongest possible presumption, set the science of probabilities so utterly at naught as to adopt as reality an hypothesis the chances against which are but one single iota short of infinite.

What, however, is unequivocally absurd, is a certain notion which I hinted would be found to be inevitably consequent on the foregoing premisses, and whose self-evident falsity carries with it condemnation of the premisses. To say that the creative agency denominated Nature, or by whatever other name known, neither had any ends in view when originally adopting certain sequences of action, and originally fabricating innumerable organisms exactly suitable for the performance, in concert with those sequences, of innumerable useful functions; nor, although ever since repeating the sequences, and maintaining or reproducing the organisms, has so done with any reference to the purposes which the sequences and organisms serve, is equivalent to saying that the agency in question is not even aware that any purposes are served. He who planted the eye doth not then see. He who fashioned the ear doth not hear. He who teacheth man knowledge doth not, it seems, know. Yet what, according to this, creative agency, whether God or Nature, Creator or Creatress, can not perceive, the creature can. Even an ass knows that thistles are good to eat, and that certain movements of his tongue and larynx will result in a bray; while man not only daily discovers fresh uses for things, but imagines that if he had had the fashioning of them, he might have materially increased their utility; King Alfonso of Castile, for in-

stance, boasting of the valuable cosmogonical advice he could have given had he been taken into council; and one of Kaiser Wilhelm's predecessors on the throne of Prussia intimating that he, in like case, would have proved conclusively that pounded quartz and silex may easily be in excess in arable soil. The creature, then, has intelligence of which the Creator has always been destitute. Yet the creature can have nothing save what, either directly or indirectly, he derives from a creator. Wherefore that, in becoming endowed with intelligence, man must have received from the Creator that which the Creator had not to give, is an article inseparable from the profession of faith of those moderate Atheists who are content to regard man as a creature.

There are, however, others of a more uncompromising temper, who do not hesitate to pronounce creation, in the sense of formation of something out of nothing, to be an incomprehensible myth; and it cannot be denied to these that, however difficult it be to conceive an uncreated universe existing from all eternity, the conception of an eternally existent Creator is not one whit easier. Fairly enough, therefore, these may proceed to argue that in the production of that compound, man, the share of the agency usually styled creative must have been limited to combining and arranging the elemental particles of his corporeal moiety. Quite fairly, advancing still farther, they may hazard a conjecture that it is from the union of the corporeal constituents of man that the generation of his spiritual moiety has resulted. But for such generation it is plainly indispensable that the corporeal constituents should have been not inert particles but self-acting forces, and that, as such, they must have been in possession of more or less

intelligence, which intelligence again either was or was not equal in amount to that of the human spirit or mind generated by them. If it were not equal, then the forces must have given to their offspring more than they had themselves got to give—which is sheer nonsense. If it were equal, then, inasmuch as the human mind is quite clever enough to discover uses for the various parts of the human body and of other organisms, the forces to which the human mind owes its origin must be at least equally clever. The elementary forces by whose action the human and other organic bodies have been constructed, must have been perfectly aware what they were constructing, and what services the resulting structures would be fitted to render. In other words, they must in their constructive operations have worked towards specific ends, according to preconceived plan and set design, wittingly contriving various machines for various purposes. The advanced Atheists, with whose speculations we are here especially concerned, are thus at liberty to choose between two horns of a dilemma, but must not hope to escape both. Either they stand self-refuted by assuming something to have been made out of nothing—a process which they began by pronouncing impossible—or they must imagine intelligence, competent to devise all organisms, to be diffused throughout the universe, thereby showing themselves to have assumed their sectarian appellation without sufficient warrant, and to be in reality rather Pantheists than Atheists.

A third hypothesis indeed remains for any who are content to believe that Nature's elementary forces having, without knowing what they were about, constructed the human body, the human mind, until then a houseless

wanderer, lit upon it by chance, and, observing it to be a habitation suitably swept and garnished, entered in and dwelt there. Upon this supposition there must be, within the limits of our terrene sphere, two distinct species of intelligence, a greater and a lesser—the one competent to construct all sorts of marvellously complex and marvellously serviceable machines, yet incompetent to understand their utility, the other fully perceiving the utility of the machines, yet utterly incompetent to fabricate them. But there are probably few adventurers on the ocean of speculation who would not prefer total shipwreck to the shelter of such a harbour of refuge as this.

Atheism must in fairness be acknowledged to have much mended its manners within the last two or three generations. Its tone and language are no longer of the rude, scoffing sort at which Voltaire may be readily pictured as breaking into voluble protest, or Hume as contemptuously opening his eyes and shrugging his shoulders. Though grown more civil, however, it cannot be complimented on having grown more rational. At most may it be credited with being more elaborately irrational than of old. It now no longer denies, it only ignores. It does not pronounce God non-existent. It only insists that there is not complete proof that God exists; thereupon, however, proceeding to argue as if He did not exist, and thereby, not simply confounding deficiency of proof on one side with sufficiency of proof on the other, but overlooking an amount of proof that on any other subject would, provisionally at least, be deemed conclusive, and perversely rejecting an hypothesis which, whether correct or not, is at least a good working hypothesis, coinciding exactly with most of the facts, and

inconsistent with none of them, in favour of an hypothesis which, even in the hands of a Huxley or a Darwin, cannot be made to work at all.

II.

To my mind there is a genuine pleasure in giving expression to admiration of any great intellectual achievement; and it is much rather for that reason than on account of any value which I imagine my opinion on such a subject can possess, that, having had occasion to name the illustrious author of the 'Origin of Species,' I desire to preface my criticism on what appears to me to be a grave defect in his theory, by intimating my hearty concurrence in its leading principles. That inasmuch as, owing to the exceeding fecundity of the generality of organic beings, more individuals of almost every species are born than can possibly survive, and that consequently a desperate struggle for existence must take place amongst them; that in such a struggle the smallest grain may turn the scale, the minutest advantage possessed by some individuals over others determine which shall live and which shall die; that, as the circumstances in which life is to be maintained change, the character and structure of organisms must change also in order to be accommodated thereto, but that the changes which consequently take place in some individuals are better suited to the altered circumstances than those which take place in other individuals; that individual offspring, moreover, although always strongly resembling their parents in the majority of particulars, always exhibit some slight differences from them; that of these differences such as do not render the offspring less fit

will almost of necessity render them more fit for coping with their rivals; and that superior fitness, however acquired, is as likely as any other quality to be transmitted to succeeding generations—all these are indisputable facts, and from these, as premisses, it seems to me not so much to be legitimately deducible that most existing species may have been produced 'by descent, with modification, through natural selection,' or 'survival of the fittest,' as necessarily to follow that they cannot have originated in any other way. For *all* species to have been created such as they now are, is simply inconsistent with the premisses. Whatever beings may at any remote epoch have been created, there must, according to the conditions involved, have been amongst their descendants some better fitted, by reason of divergence from the parent type, for engaging in internecine strife than those, if any such there were, which adhered closely to that type. Whether, then, among the survivors from the first engagement in that never-ending struggle for life which must have commenced soon after the creation, there were or were not any exact representatives of the parent type, there must have been some exhibiting more or less of divergence from that type. Among the descendants of these, again, there must have been some who, together with the structural or other advantages inherited from their immediate ancestors, possessed, moreover, some advantages first nascent in themselves, and who were similarly enabled thereby to prevail over their less gifted competitors, and similarly to transmit all their advantages to a posterity, some members of which would similarly be born with certain new advantages in addition. By continual repetition of these processes, and the consequent accumulation of divergencies from the

original pattern, however slight those divergencies might separately be, there could not but eventually become formed breeds so distinct from each other as to be to all intents and purposes distinct species, in whichsoever of its many vague senses the term 'species' be understood. Now these species, instead of having been created, would be the result of divergence from their created progenitor. Whether, therefore, any created species do or do not still exist, it is certain that among existing species there are some that were not created, but which have been gradually evolved, and evolved, too, through survival of the fittest. Mr. Darwin, then, is fairly entitled to the praise of having placed beyond dispute that a process called by himself 'Natural Selection,' and by Mr. Herbert Spencer 'Survival of the Fittest,' has almost from the commencement of organic life been, and still is, in active operation; that it is a cause which must needs have originated some species, and is quite competent to have originated all that still exist; whereas creation, the only other suggested cause, cannot be conceived to have done this latter unless every minutest shade of difference between offspring and parent be regarded as the effect of a separate creative act. Unless creation have originated every one of those divergencies the accumulation of which constitutes a species, clearly it cannot have originated that species. With some of the phenomena connected with species the theory of creation cannot be reconciled unless this novel interpretation be placed upon the word creation, whereas there are none of the phenomena with which the evolutionary hypothesis conflicts, and few, if any, which, when restricted to its proper office of auxiliary, it will not help to explain.

To what we might thus be assured of, even if we had

only general principles to guide us, all obtainable evidence unanimously testifies. Geology distinctly proclaims that every portion of our globe's surface has undergone vast changes, and that its organic inhabitants have changed simultaneously and proportionately. The proof absolute, which it furnishes, that at a period when few, if any, existing species had made their appearance, many species now extinct already existed, is proof equally absolute that if all species extinct and extant were created, they cannot, at any rate, have been created at the same time. Of so much at least we must be satisfied, unless we are prepared to accept the ingenious conjecture of an orthodox divine, that, while our earth was being formed out of chaos, Satan, to confound the faith of remote generations, brought over bones of monsters from other worlds and embedded them in the soil of ours, or that, as the same idea has been otherwise expressed, while the earth's crust was a baking the devil had a finger in the pie. Moreover, on the supposition that there was a break of ages between the creations of extinct and of extant species, as geology positively declares there must have been if both were separately created, how passing strange is the 'grand fact that all extinct beings can be classed with all recent beings'! The strangeness disappears, however, when both are regarded as descendants of common progenitors. The wonder would then be if they could not be so classed. Again, how astonishing on the creative, how natural on the evolutionary hypothesis, that the arrangement of bones in the hand of a man, the wing of a bat, the fin of a porpoise, the leg of a horse, should be precisely the same; the number of vertebræ in the neck of a giraffe, and in that of an elephant the same; the primitive germs from which a man, a dog, a

frog, and a lobster are gradually evolved, to all appearance the same—the same microscopic atom of homogeneous matter, undistinguishable by any known test from an animalcule almost at the bottom of the organic scale! Above all, that the courses by which animals of all degrees of complexity are gradually developed from apparently equally simple germs should, whenever traceable, be found to consist of progressive ramifications, so that every higher animal, before arriving at maturity, passes through several stages at the end of each of which lower animals have stopped! How impossible, or how easy, to understand, according as the one or the other hypothesis is adopted, is the phenomenon of what in the one case will be treated as rudimentary, in the other as obsolete, organs! No one need scruple to regard these as apparatus which the creature has outgrown and allowed to fall into decay through neglect; but whatever there is in us of real nobleness of feeling revolts against the notion of their being apparatus which a divine Creator began to build but was not able to finish. And yet again, how insultingly irreconcileable with any rational estimate of Divine nature is the possibility of any existing type of mammals having been created, seeing that if so, it must have been created with *false* marks of nourishment from the womb of a mother that never existed!

These are some of the main grounds on which the Darwinian theory rests. Of the abundance of detailed illustrations from which it may derive additional support no adequate idea can be formed, except by careful perusal of its author's own writings, and these fortunately may without much exaggeration be said to be in everybody's hands. Of the arguments that have been brought forward

in opposition to it, all seem to me to be susceptible of very complete answers, and one or two of the strongest, of answers more complete than they have yet received. True, there is no disputing the testimony borne by the paintings and sculptures of Egyptian tombs, and of Ninevite palaces, that the basement floors in Thebes and Memphis were infested by much the same sort of beetles as those which are such nuisances in London kitchens; that Sardanapalus, if ever he exchanged indoor for outdoor sports, may have hunted with dogs and horses that might pass muster at an English meet, and that the Pharaohs were served by negro slaves as like as two peas in all externals to those who in the United States have recently and prematurely been metamorphosed into free and independent electors. But all this only proves that certain species which existed 4,000 years ago are still represented by unchanged descendants. It does not prove that other descendants and groups of descendants from the same species have not within the same period undergone changes sufficiently great to convert them into distinct races; neither, if it did prove thus much, would it do more than afford a presumption, and a very deceptive one, that 4,000 years are too short a time for the formation of a new race, affording besides, at the same time, much stronger presumption that, within the remotest limits to which Mosaic chronology can be pushed back, the various races of mankind, white, black, and intermediately tinted, can not possibly have descended from one pair of ancestors.

That domesticated animals, when suffered to run wild, always return to the primitive wild type—this, instead of an argument against, is one of the strongest arguments for the evolution theory, from which it is indeed, as Mr. G. H.

Lewes says, a necessary deduction. 'It is simply because, as the conditions of life change, structure must, for adaptation's sake, change likewise, that wild animals are capable of being domesticated, of being, that is, made to undergo modifications by being brought from the conditions of wildness to those of domesticity. How, then, should they possibly retain those modifications, how escape return to their previous shape and habits, when retransferred from domesticity to wildness?

The question, Why are not new species continually produced? may be aptly met by another. How, consistently with the theory, is it possible they should? Natural Selection is represented as acting 'solely by accumulating slight successive favourable variations,' as taking only short and slow steps. By what possibility, then, can it suddenly produce modifications sufficiently conspicuous to mark off a new species? New species may be, and indeed are, constantly in process of formation on all sides, under our very eyes, without our being aware; for since the process requires ages for its accomplishment, it must needs be imperceptible by the keenest observation. So that even when a new species is completed, it is not recognised as new, so minute is the difference between the perfection to which it has attained, and the imperfect state in which we and our fathers before us had long known it.

'Why, however, since, according to the theory of Natural Selection, an interminable number of intermediate forms must have existed, linking together all the species in each group by gradations as fine as are our present varieties—why do we not see these linking forms all around us?' To this objection the very theory against which it is urged affords a partial and almost adequate reply, the

deficiencies of which are besides to some extent supplied by embryology and geology, and to a farther extent accounted for by the meagreness of the geological record. Natural selection for survival necessarily implies extinction of all that are not selected to survive, so that fossil remains are now the only procurable evidence that any of these latter that have long been extinct ever existed. But very many organic beings are incapable of being preserved in a fossil condition, while of those which can be so preserved 'the number of specimens in all our museums is absolutely as nothing compared with the countless generations of countless species that must have existed.' It should be recollected, too, that among still existing forms are to be included several which result from uterine transformation, and are never found alive except *in utero.*

Another objection, notwithstanding the great stress often laid on it, seems to me to be altogether beside the real issue. It is the one derived from the invariable sterility, real or supposed, of hybrids. A fact cited by Mr. Lewes,[1] that of the fecundity of a cross called *Leporides*, bred by M. Rouy of Angoulême, between the hare and rabbit, of which a thousand on an average were for many years, and probably are still, sent annually to market, would seem to be decisive against the assumed sterility; but, however this be, matters not the least in regard to the efficacy of Natural Selection, which, be it once again observed, is represented as producing new species, not suddenly by the copulation of two old and utterly distinct ones, but very gradually and slowly, by the accumulation of minute differences occurring in successive individuals of the same species.

The chief if not the only serious obstacles to accept-

[1] 'Studies in Animal Life,' chap. v.

ance of Darwinism seem to me to be of the author's own creation. Now and then he appears somewhat needlessly to overstrain his principles, as for instance when he intimates his conviction that 'all individuals of the same species, and all the closely allied species of most genera,' will hereafter be discovered to 'have descended from one parent and to have migrated from some one birthplace.' This, to my mind, is much more unlikely than his further suggestion that 'all animals and plants are descended from some one prototype.' Startling as this second proposition may be on first hearing, it may not very improbably express the real fact, provided by 'some one prototype' be signified, not a single individual, but several individuals of one and the same type. Beyond all doubt there was a time when on and about our earth all matter was as yet inorganic, and when whatever spirit,[1] of the sort so termed in contradistinction to matter, either permeated the earth's substance or moved about its surface, must have been as yet unembodied. Mr. Darwin demands whether any one can 'really believe that at innumerable periods in the earth's history, elemental atoms have been commanded suddenly to flash into living tissues.' I for one certainly am far from believing this. I see no reason for believing that, whatever other phenomenon, at all similar, may at any stage of the world's progress have occurred, it has at innumerable subsequent stages been repeated; neither do I consider that the phenomenon is likely to have worn the guise of a sudden flash. But I do firmly believe, and am quite unable to substitute any equally plausible substitute

[1] The reader who, having skipped some of the earlier chapters, may find this language obscure, is requested to turn back to the essay on 'Huxleyism,' pp. 194-6.

for the belief, that when the crust of the earth had sufficiently cooled, and when other physical conditions had become such as to admit of the manifestation of that life which we are accustomed to distinguish by attaching to it the epithet 'organic,' certain of those forces[1] which, in my opinion, constitute matter, did, either of their own accord or under superior direction—not suddenly flash, but—slowly elaborate themselves into organic structures of some exceedingly simple type; that in the course of ages these simple structures either developed themselves or were developed into structures rendered by slow degrees more and more complex, until the degree of complexity attained, being such as to fit them for being inhabited by spirit previously unembodied, they were, by individualised portions of such spirit, appropriated and inhabited accordingly. Beyond all doubt, at some period or other, what had always previously been unorganised matter must have become organised. Of two things one, then. Either this matter must, whether under superior direction or not, have organised itself, or it must have been organised by some other agency. Mr. Darwin, together with all thorough-going Darwinians, inclines, I suspect, to the opinion that matter organised itself; but if so, it cannot possibly have been inert or lifeless, but must have been active and animate, and capable of volition; and on that condition, there is no great stretch of fancy in imagining it to have spontaneously adopted the series of arrangements indicated. If, on the other hand, we are content to admit that some external superior intelligence may have performed, or conducted, or presided over operations, all room for wonder vanishes.

[1] See again, pp. 194–6.

In regard to the character of the structural prototype, that, of course, would depend in part on surrounding physical conditions, and if these have ever been the same in all parts of the globe, there is no apparent reason why any number of specimens of the prototype may not anywhere have been independently elaborated. It is not possible, however, that, since the earth began to revolve round the sun, physical conditions can have been *simultaneously* the same in all latitudes; while, on the other hand, it seems probable that, although the same set of conditions might perhaps admit of the production of only one organic type, there might be other sets of conditions favourable to the production of other types. On the whole, then, it seems more probable that inorganic matter combined (or *was* combined) in the first instance in several modes, than in one single mode, in order to become organic. But whatever may have been the organic form or forms it first took, to assume that only a single individual of each form was independently elaborated, and that all other individuals, both of the same form and of all the more complex forms, gradually evolved from that one—are descendants from the same first individual, the same first parent—surely very gratuitously increases the difficulties of the subject. Especially it complicates the problem of the distribution of the same plants and animals over countries immemorially separated by gulfs apparently impassable by natural means.

The obstruction which Mr. Darwin has created to the progress of his opinions by the exaggerated shape in which some of them have been presented is, however, as nothing in comparison with the injury he does to his theory by obstinately rejecting certain materials indispensable for its satisfactory completion. What an ad-

mirable theory it is so far as it goes! How nicely it fits into all the facts it comes in contact with, even into those which it is, of itself and unassisted, incompetent to explain! How elevating too and ennobling, when rightly conceived! for who can fail to rejoice in the view it presents of 'Natural selection working solely by and for the good of each being' that it spares, and causing 'all corporal and mental endowments to tend towards perfection'? or who need mind suspecting himself to be descended, through an ape, from a triton or a hydra, if he may compensate himself by hoping to have a distant posterity of angels? How well, moreover, would it, if permitted, chime in with any rational religion, besides being, as already hinted, absolutely essential to that part of the Mosaic creed which represents all the variously coloured and variously featured races of men as springing from one single couple. By what perversity then is it that Mr. Darwin takes such pains, if not to render his theory irreligious, at least to exclude from it the assistance which religion alone can afford, and which it so greatly needs, that whoever, without that assistance, attempts to apply the theory to the complete elucidation of phenomena, will be found inevitably committing himself to the most astounding hypotheses? Here I picture to myself a curl on the lip of some advanced Darwinian who, having accompanied me so far, cannot altogether suppress his compassionate scorn at the proposed recurrence now-a-days to a mode of thought so obsolete in the treatment of scientific subjects as the theological. 'Positive biology,' he will perhaps superbly exclaim, repeating the words of Mr. G. H. Lewes, 'declines theological explanations altogether.' Yes, but positive biology is therein very unwise,

for as, if the same reader will accompany me a little further, I pledge myself to show, it is the untheological or atheistical, not the theistical, mode of treatment which is here utterly out of place and flagrantly unscientific. Be it, without the slightest reserve, admitted that the formation of almost all, and probably of quite all, existing species is due, and cannot be otherwise than due, to survival of the fittest, the superior fitness of these, moreover, being due to the gradual accumulation of innumerable and, for the most part, exceedingly slight divergencies from the parent stock. But whence and why these divergencies? It cannot be without a cause that even one more feather than the parent possessed appears in the offspring's wing, or a novel tint on its coat, or that the curve of beak or talons is not precisely the same in each. What then is the cause? Unphilosophic people will most likely call it 'all chance,' getting sneered at for their pains, and justly too, as using words without meaning. But are not philosophers themselves doing much the same thing, and merely restating facts which they profess to explain, when, like Mr. Lewes,[1] they talk of the 'specific shape' assumed by an 'organic plasma' being 'always dependent on the polarity of its molecules,' 'or due to the operation of immanent properties;' or declare that, in the process of organic evolution, 'each stage determines its successor,' 'consensus of the whole impressing a peculiar direction on the development of parts, and the law of Epigenesis necessitating a serial development,' insomuch that, 'every part being the effect of a pre-existing, and in turn the cause of a succeeding part,' the reason why, when a crab loses its claw, the member is reproduced, is that the group of cells remaining at the stump 'is the

[1] 'Mr. Darwin's Hypotheses.' Part II. 'Fortnightly Review' for June 1868.

necessary condition of the genesis' of precisely that new group which the reproductive process imperatively requires to follow next in order, this second group equally the necessary condition for genesis of the one required third, the third for the fourth, and so on; and that the reason why the thorns of a blackberry admit of somewhat close comparison with the hooks and spines of certain crustaceæ, is that portions of the integument of both plant and crawfish '*tend* under similar external forces to develop' into similar forms?

I pass rapidly over one or two minor difficulties that here present themselves. I will not stop to ask how—if reproduction of lost limbs be due to polarity of the molecules, in other words to the direction which in the circumstances of the case the molecules are bound to take, and if the polarity of each particular set of molecules be impressed upon them by the group formed immediately previously—how it is that the group terminating the docked stump of a limb, which group is represented as commencing the work of reproduction, imparts a different direction or tendency to the fresh molecules of nourishment that are supplied to it, from that which it has been accustomed to communicate to previous molecular supplies. Hitherto it has used such molecules solely for the repair of its own waste; now it employs a large portion of them to build up an entirely new fabric. It seems then that molecular polarity is not a fixed but a variable property, and, being such, cannot be inherent or originate in the molecular nature. But I will not linger over this point nor yet over the fact, absolutely unintelligible on the polar hypothesis, that it is comparatively only few animals that are capable of reproducing severed parts. Although the

process required, no doubt, is, as Mr. Lewes says, 'in all essential respects the same as that which originally produced' the parts, the last layer of cells left at the place of excision after a human leg or arm has been cut off, lacks the skill to repeat an operation, which according to the hypothesis it has once before performed. It cannot so determine the polarity of the molecules with which it is supplied by the arteries as to constrain them to group themselves into a new layer, instead of merely repairing an old one. A crab or a lobster, or a polype's molecules are clever enough for this, a man's not. Without pressing these objections, but on the contrary, conceding for the nonce and for argument's sake, to molecular polarity, to immanent properties, to Epigenetic evolution, all the efficacy claimed for them, I limit myself to inquiring what causes the various tendencies and directions which these imply. Tendency pre-supposes impulse; direction control. What is it that here imparts the impulse and exercises the control? Whatever else it be, it must, for reasons stated at length on a previous page, be something possessing at least enough of intelligence to exercise volition, and which at least intends that the movements which it originates shall take place, whether it further intends or not the ends which eventually result from the movements. To myself it seems barely conceivable that even the least marvellous of these ends should have been undesigned. Take, for instance, half a dozen *infusoria* of some exceedingly low type, all individually single cells or sacs of matter perfectly transparent and destitute of any approach to structure that can be detected with a magnifying power of five thousand diameters. Observe how, after feeding for a while, and increasing proportionately in size, one will divide itself in

half, each half becoming a separate and complete animalcule, another line itself internally and clothe itself externally with clustered cells, which, by a series of differentiations, traceable through a number of animalcular varieties, eventually exhibit the outlines of respiratory and circulatory systems. To me, I repeat, it seems all but inconceivable, and altogether incredible, that the intelligence which willed these cellular divisions, multiplications, and differentiations to take place, did not foresee what would be their results, and did not will them for the sake of those results. And if I do not deem it still more incredible that there should be *natural* selection separating the fittest for survival by accumulating upon them slight advantages which qualify them to survive, without there being at the same time a *nature*, or other exalted intelligence, however designated, which selects, and which accumulates advantages upon the objects of its selection, *in order* that they may survive, it is only because I consider the extremest limits of credibility to have been already passed. But I forget. On reflection I perceive that I am doing scant justice to the elasticity of philosophic belief. How far this is capable of stretching on occasion, let one or two notable Darwinian specimens show.

No single piece of organic mechanism is oftener or more confidently appealed to by Theists as rendering conclusive evidence on their side than the eye, nor would they run much risk by allowing sentence to go for or against them according as Mr. Darwin has or has not succeeded in his attempt to explain that evidence away. Possibly he may disclaim having made any attempt of the kind, and I must admit that it is less by what he says than by what he leaves unsaid, that he lays himself open to the charge.

Indeed, in almost all he says on the subject, I myself cordially agree, embracing even some of his views with less of hesitation than he seems to have felt in putting them forward. He seems to me, for instance, to have somewhat gratuitously admitted it to be apparently 'in the highest degree absurd to suppose that the eye, with all its inimitable contrivances for adjusting the focus to different distances, for admitting different amounts of light, and for the correction of spherical and chromatic aberration, could have been formed by natural selection.' For since, as he proceeds unanswerably to argue, 'numerous gradations, from an imperfect and simple eye to one perfect and complex, each grade being useful to its possessor, can certainly be shown to exist;' since, as certainly, slight variations of the eye do occur, and are inherited, and since of these variations there cannot but be some which are useful to the animal exhibiting them under changing conditions of life, the difficulty of believing in the formation of a perfect and complex eye by natural selection can be little else than a prejudice of the imagination. He proceeds to indicate some probable stages in the assumed process. Some of the lowest organisms, in which no trace of nerves can be detected, are known to be sensible to light, owing, probably, to the presence in the *sarcode* of which they are mainly composed, of certain elements which, in organisms somewhat higher in the scale, become aggregated and developed into nerves specially endowed with the same sensibility. An optic nerve thus formed, surrounded by pigment cells, and covered by translucent skin, is the simplest organ that can be called an eye, but it is an eye incapable of distinct vision, and serving only to distinguish light from darkness. In certain star-fishes, small

depressions in the layer of pigment-cells are filled with transparent gelatinous matter projecting with a convex surface like a rudimentary cornea, and this, it has been suggested, may serve, not only to form an image, but to concentrate the luminous rays. In insects, the numerous facets in the cornea of their great compound eyes have now been ascertained to form true lenses, the cones, moreover, having been discovered to include curiously modified nervous filaments. It is impossible not, in this series of changes, to perceive the appearance of graduation, nor ought there to be much difficulty in believing the apparent graduation to be real, when we consider how few comparatively are the still living forms in which the changes cited have been observed, and how far more numerous the extinct forms by which intermediate changes may have been presented. If there be no extravagance in supposing that natural selection may have occasioned these early steps, neither is there any in supposing that, by continued progress in the same direction, it may at length have fabricated the most perfect optical instrument possessed by any member of the *articulata*. And, if credited so far, why not still further? why not with competence to form a man's or an eagle's eye? So far I am as completely at one with Mr. Darwin in respect to the eye as in respect to any other of the subjects taken by him for illustration. The fact is, however, that in this, as in every similar instance, he has completely evaded the real difficulties of the case. It is not a whit more startling to be told that the most complex eye, with all the latest improvements, than to be told that the earliest rudiment of an optic nerve, may have been formed by the gradual accumulation of minute differences. Only allow time enough

for the requisite accumulation, and neither operation is one whit more unintelligible than the other. The difficulty, equally and utterly insuperable in both cases, is to understand how the difference can have been undesigned. 'How a nerve comes to be sensitive to light,' says Mr. Darwin, 'hardly concerns us more than how life itself originated.' Perhaps not; nor, indeed, very well could it, for the second question of the two is surely one of almost unsurpassed concernment; but, at any rate, when either of the two is asked, nothing can be more reprehensible than, by studiously ignoring the only alternative reply, to leave it to be inferred that the nerve made itself, or that life caused itself to live, that both are in short examples of what Mr. Darwin strangely calls '*variation causing alterations.*'[1] Let us briefly consider a few of the results supposed to be attributable to this singular process. The eye, as every reader of course knows, though here and there one perhaps may not be the worse for being reminded, consists of four coats—the *sclerotic*, outermost and strongest, which constitutes the white of the eye; the circular, tough, and coloured, yet pellucid, *cornea*, in the centre of which is seen the pupil; the *choroid*, full charged with black pigment, and lining the sclerotic; the *retina*, an expansion of the optic nerve, lining in its turn the choroid; of the *iris*, a flat membrane, dividing the eye into two very unequally-sized chambers; of a lens termed the *crystalline*, suspended in the posterior chamber immediately behind the iris; and of two humours (also virtual lenses), whereof one, the *aqueous*, is enclosed in the anterior chamber formed by the iris and the cornea, while the other, the *vitreous*, fills the whole of the posterior chamber save

[1] 'Origin of Species,' p. 226.

what is occupied by the crystalline lens. By what nice interlacement of filaments the fibrous ring that margins the pupil, or aperture through the iris, regulates the admission of light, contracting or expanding, yet always preserving its circular form, according as the brilliance is excessive or deficient ; how the humours or lenses are continually varying in figure and relative position so as to concentrate every pencil of light admitted on that point exactly where the retina is spread out to receive it ; how, according as the object looked at is near at hand or far off, certain muscles perform quite opposite services, rendering the cornea more or less prominent, pushing the crystalline lens forward or backward, and thereby lengthening or shortening the axis of vision, so that, whether the rays enter divergently from a near object, or parallel from a remote one, they equally fall into focus at the same distance beyond, and equally form on the retina a picture of the object from which they come, perhaps compressing a landscape of five or six square leagues into a space of half an inch diameter, and anon allowing the page of a book or a dinner-plate to occupy the entire field of vision—to these and to any kindred marvels it would be superfluous more than momentarily to refer. Suffice it to note how measureless the superiority, as a mere piece of mechanism, of an average eye to the finest of telescopes, and how just, nevertheless, is the telescope-maker's claim to praise for skilful adaptation to the laws of optics, when he has succeeded in a faint and feeble imitation of some minor part of nature's visual apparatus. Yet nature's original and infinitely more beautiful aptitudes we are forbidden to deem adaptations, being required instead to regard them as self-produced, or, at any rate, as having been un-

designed. Now I unreservedly admit that, among all conceivable forms, among the most exquisitely beautiful and most usefully intricate and complex, there is not one which may not possibly have been produced without aim or purpose by the mere restlessness of elemental forces; the amount of probability of their having been so produced being, however, according to the formula already set forth in its proper place, as one to infinity multiplied more or less frequently by itself. But what adequate superlative shall we invent to express the credulity, the credulosity run mad, of those who, in a matter of scientific belief, deliberately accept such odds. Observe how at once extravagantly gratuitous and painfully elaborate such credulosity is; how easily, on the one hand, all its ends could be served by the simple expedient of supposing a superintending intelligence; how, on the other, it compels ingenuity like Mr. Darwin's to entrench itself behind a phrase of utterly unmeaning gibberish.

If you see a man moving slowly, with head down, over an extensive plain, you may fairly suspect that he does not know where he is going, and possibly does not mean to go anywhere in particular. But if you perceive that on reaching a ditch he takes a leap over, you are quite sure that, when leaping, he meant to get to the other side. To that extent his saltatory movement is unequivocal evidence of design. It is perhaps to escape the necessity of a similar inference that Mr. Darwin so frequently quotes the proverb *Natura non facit saltum*; but, if so, he leans on a broken reed—on a bit of proverbial philosophy as weak as the weakest of Mr. Tupper's. That Nature does sometimes make a leap, and a pretty long one, must be obvious to any visitor to the Museum of the London College of

Surgeons, who has examined the two-headed and four-legged human fœti there preserved in spirits. It may be said that these are leaps in the wrong direction. Be it so. Still, whoever can leap backward can make an equal leap forward, and most people will find the latter the easier feat of the two. The power, whatever it be, that coupled together the Siamese Twins, and gave to those respected brothers, the late William and Robert Chambers of Edinburgh, twelve fingers and twelve toes apiece, would not have gone at all more out of the way by doing, suddenly and at once, several of those things which Mr. Darwin doubts not that it does slowly and by degrees—by single acts, for instance, instead of by a succession of acts, aggregating into the semblance of an optic nerve certain elements in the *sarcode* of certain low organisms, spreading out the nerve thus formed into a network or retina, forming a number of separate pigment-cells into a homogeneous cornea, and following up these first steps by others which, how much soever more apparently complex, would cost comparatively little after the earlier and simpler ones had been taken. Now let but the power competent to do these things be credited with sense enough to be aware of its competence, and it may then be regarded as not unlikely to have done some of them on purpose. Whereupon, the genesis of the eye ceases to be a mystery. All the appearances of contrivance that have resulted from the operation find their obvious and complete explanation in the assumption of a contriver, and all such hazy films as that of variability producing variation cease to be capable of serving as excuses for wilful blindness. And why should not the power in question be so credited? Here is Mr. Darwin's solitary reason why. He doubts whether

the inference implied may not be 'presumptuous.' He apprehends that we have no 'right to assume that the Creator works by intellectual powers like those of a man.' Truly, of all suggested modes of marking respect for creative power, that of assuming it to have worked unintelligently is the most original.

The hypothesis offered by Mr. Darwin in explanation of the most perfect of organic structures, is deemed by him to be equally explanatory of the most marvellous of animal instincts. Parenthetically, here, never having as yet met with a definition of instinct which I am able to accept as satisfactory, I make bold to offer a description of my own. Instinct is innate knowledge how to perform any useful actions, accompanied by a tendency or propensity to perform those actions, but wholly unaccompanied by knowledge of any purpose which they can serve. This is pure instinct, an example whereof is afforded by the beaver, of which animal I have somewhere read that one caught when newly born, and brought up by itself in a room in its captor's house, proceeded after a while to build up across the apartment the semblance of a dam, composed of brushes, rugs, billets of wood, and other litter. Pure instinct differs essentially, not in degree only, but in kind, from reason, which is not knowledge, but an instrument for acquiring knowledge. Instinct, however, is rarely if ever found pure, being apparently always accompanied by more or less of reason. Even a polype makes some show of reason by moving its *cilia* in one mode when it desires to suck in food, and in another when it merely wishes to move on; while it is scarcely possible for an unprejudiced spectator to doubt of its being by a rational deduction from experience that a dog knows that it will get kicked

if it presume to snatch at the meat on its master's plate, instead of waiting for the scraps he may be pleased to throw to it when he has done. Instinct by necessary implication involves habit; habit as necessarily always more or less modifies structure; structural modification always may be, and often is, inherited, carrying with it a tendency to the habit out of which itself arose; therefore habit and instinct are likewise heritable. Some instincts are originated artificially. The reason why, on the very first opportunity, a young pointer has been known to point at game, and a young sheep-dog to run round, instead of at, a flock of sheep, is that some of their respective ancestors had been carefully trained so to point and to wheel. These, however, are exceptions to the general rule. Most instincts are of what every one would call natural, and Mr. Darwin calls 'spontaneous' origin, he explaining the meaning of the latter term to be that the slight variations from a primordial type, the accumulation of which is considered by him to constitute actual instinct, are 'variations produced by the same unknown causes as those which produce slight deviations of bodily structure.' But here I am once more compelled to join issue with him. Of the causes which he styles unknown, I maintain that we know at least thus much—either they are themselves intelligent forces, or they are forces acting under intelligent direction; and in support of this proposition I need not perhaps do more than show from Mr. Darwin's example what infinitely harder things must be accepted by those who decline to accept this.

Mr. Darwin, like every really truth-loving controversialist, far from desiring to shroud, invites special attention to any seeming weaknesses in his position; and, therefore,

when contending that all the faculties commonly classed as instincts, are exclusively due to natural selection, of course takes care to particularise the cellmaking faculty of the hive bee. And here, again, I gladly bear my humble testimony to the partial success he has achieved. Although bound to protest against the claim set up by him, on behalf of natural selection, to the entire credit of producing the hive bee's most remarkable characteristic, I cannot but think he has succeeded in removing all the apparent difficulties of believing that natural selection's share may have been not less important in that than in any other productive operation in which it takes part.

In popular estimation the hive bee is a heaven-born mathematician which, having been set the problem how to fill a given space with waxen cells with the least loss of room and expenditure of material, arrives by intuition and instantaneously at a solution which Newton himself was ignorant of, and to which, but for his discovery of the fluxional calculus, it would have been impossible for his follower, Maclaurin, to attain. And, doubtless, it may excusably be deemed supernatural that the insect should adopt off-hand precisely that six-sided figure, and precisely that inclination of the angles of the same figure's pyramidal roof or floor, which, only by very refined and recondite investigation, can be scientifically shown to be those best fitted for the purpose. Mr. Darwin has, however, adduced strong grounds for supposing the amazing architectural skill thus displayed to have been acquired, not suddenly, but by the same slow degrees as those which are so clearly traceable throughout organic progress in general. At the lower end of a short apiary series, he observed humble bees using their old cocoons

for honey pots, sometimes adding to them short tubes of wax, and likewise making separate and very irregular cells entirely of wax. At the higher end of the series, he saw hive bees making double layers of cells, each cell an hexagonal prism with the basal ends of its six sides bevelled so as to fit on to a pyramid formed of three rhombs, and each of the three rhombs which compose the pyramidal base of a single cell on one side of the comb entering into the composition of one of the three adjoining cells on the opposite side. Intermediately, he found the Mexican *meliponæ domesticæ* depositing their honey in cells nearly spherical, and of nearly equal sizes. 'These cells, although aggregated into a mass otherwise irregular, are always at such a degree of nearness to each other that they would have intersected or broken into each other if the spheres had been completed. But this is never permitted, the bees building perfectly flat walls of wax between the spheres which thus tend to intersect. Hence, each cell consists of an outer spherical portion, and of two, three, or more, perfectly flat surfaces, according as the cell adjoins two, three, or more cells; and when one cell rests on three others, as from the spheres being nearly of the same size is very frequently and necessarily the case, the three flat surfaces are united into a pyramid rudely resembling the three-sided pyramidal base of the hive bee's cell, and necessarily enter, like the three rhombs of the latter, into the construction of three adjoining cells.' Reflecting on these remarkable gradations, it occurred to Mr. Darwin that if the melipona were to make its spheres of precisely equal sizes, and to arrange them symmetrically in double layers, and were further so to dispose them as that the centre of each should be at the distance of

radius × √2 or radius × 1·41421 from the centres of the six surrounding spheres in the same layer, and at the same distance from the centres of the adjoining spheres in the other and parallel layer—then 'if planes of intersection between the several spheres on both layers were formed, there would result a double layer of hexagonal prisms united together by pyramidal bases formed of three rhombs ; and the rhombs and the sides of the hexagonal prisms would have every angle identically the same with the best measurements that have been made of the cells of the hive bee.' Then, submitting this view to Professor Miller of Cambridge, he had the gratification of being assured by that distinguished geometer that it was strictly correct. Certainly a very happy example of an ingenious conjecture verified by a species of demonstration hardly inferior to the experimental. Certainly a very valuable testimony to the soundness of all the main and really essential principles of Darwinism. Good cause, certainly, is hereby shown for believing that the cell-making faculty of the hive bee may be nothing more than the aggregate of many minute and successive improvements upon that of the melipona, and this, again, than a similar aggregate of improvements on that of the humble bee ; and for believing further that hive bee and melipona may both be either descendants from the humble bee, or joint-descendants with it from some still earlier common progenitor. In order to believe this it suffices to believe that a bee which at one period made, like the humble bee, cells very unequally sized and irregularly rounded, came gradually, in the course of time, to make them as nearly equal in size and as nearly spherical as those of the melipona ; and subsequently, during a further lapse of time, came to arrange them

at the same distances from each other, and in double layers like those of the humble bee. To assume thus much requires no inordinate stretch of faith; and thus much being assumed, it is seen at once that the hive bee, requiring for its cells only about half as much wax as the humble bee does, and consequently only about half as much honey for the secretion of the requisite wax, would, in a struggle for existence, leave the humble bee so little chance that in all probability the two species would nowhere coexist, were it not for the special resource derived by the humble bee from possession of a trunk long enough to enter the nectaries of certain flowers, which the shorter trunk of the hive bee is unable to tap. But though there be no difficulty in assuming the improvements in question to have gradually taken place, and to have become aggregated in the manner supposed, there is, to my mind, an insuperable objection to supposing that successive generations of bees should have successively adopted the improvements without either having the sense to know what they were doing, or being prompted by some superior intelligence that did know. I will not be so superfluous as to exaggerate the difficulty. Passing over the earlier stages of the process, and confining myself to one or two of the later, I will content myself with showing how infinitesimally small, when magnified to the utmost, are the chances in favour of these having been passed through blindly. I will admit it to be possible that in a society of purely meliponish habits, there might, in virtue of one or other of those inscrutable causes classed under the general name of spontaneous variation, arise some two or three individuals with an innate propensity to make accurately spherical and equally sized cells; that these

individuals, if either males or fertile females, and not sterile neuters, might help to generate others with the same propensity, these again generating others, and so on, until the greater part or the whole of the community became possessed of the same constructive aptitude. I will admit further that, in virtue of the same inscrutable causes, individuals, at first few, but gradually increasing in number, might similarly be born with the additional tendency to make cells at the same, and that the most appropriate, distance from all adjoining cells; and will freely acknowledge that the bees, modifying their previous mode of construction, as meliponæ necessarily would do under these altered circumstances, would construct a layer of cells similar in all respects to those on one side of the hive bee's comb, except that their bases would be flat instead of pyramidal. Further, I admit that the bases would become pyramidal in case the bees should set about constructing double instead of single layers of cells on the same principle. Not a little liberality is required for these admissions. For, in the first place, the fact of the bees having acquired the habit of making perfect and equally sized spheres would not of itself be of any obvious benefit either to individual bees or to the society at large: in order that it should enable material and labour to be saved it would have to be accompanied by the habit of making the cells at special distances from each other. And, in the second place, though some few individuals should present themselves with an innate tendency to choose these special distances, whatever advantage might result therefrom, whatever saving of material or labour, would be shared in equally by the whole community, the particular individuals to whom it was due benefiting

by it no more than any of the rest, and not being, in consequence, more likely than they to survive in any struggle for existence, or to leave behind them offspring inheriting their special characteristics. No help, therefore, can be derived from Mr. Darwin's principles towards conjecturing why a small minority of such specially endowed bees should be gradually converted into a majority, and should eventually constitute the whole community, thereupon becoming in fact converted into a new species. Let us, however, liberally waive this and all similar objections, and assume a community of hive bees to have been, in the utterly unaccountable manner indicated by the term spontaneous variation, developed from a meliponish stock. Unfortunately, all our liberality will be found to have been thrown away without perceptibly simplifying the problem to be solved. For, whatever be among meliponæ the distribution of the generative capacities, among hive bees, at any rate, all workers are sterile neuters, which never have any offspring to whom to bequeath their cell-making skill, while the queen bee and drones, which alone can become parents, have no such skill to bequeath. Clearly the formula of 'descent with modification by natural selection,' is, in its literal sense, utterly inapplicable here. In whatever manner the cell-making faculty might have been acquired by the first homogeneous swarm of hive bees, it must inevitably have terminated with the generation with which it commenced, if transmission by direct descent had been necessary for its continuance. The only resource open to Mr. Darwin is to suppose, not merely (what is, indeed, obviously the fact) that queen bee after queen bee, besides generating each in turn a progeny of workers endowed with instincts which their

parents did not possess and could not therefore impart, generated also princess bees destined in due season to generate a working progeny similarly endowed with instincts underived from their parents; but to suppose further that all this has happened in the total absence of aim, object, intention, or design. Now that all this should have so happened, although not absolutely inconceivable, nor, therefore, absolutely impossible, is surely too incredible to be believed except in despair of some other hypothesis a trifle less preposterous. It is surely not worth while to set the doctrine of probabilities so completely at naught, for the sake of an explanation which avowedly leaves every difficulty unexplained, referring them all to causes not simply unknown but unconjecturable. What excuse, then, have philosophers, of all people, for doing this in preference to the simple expedient of supposing that, although the parturient bee, queen or other, cannot intend that any of her progeny should be more bounteously endowed than herself, there is an independent intelligence that does so intend? To content oneself with pronouncing such preference to be eminently unscientific is tenderness of language nearly akin, I fear, to literary bathos.

III.

I HAVE said that the form of unbelief to which, on the principle of calling a spade a spade, I have taken the liberty of giving the name of Scientific Atheism, manifests itself now-a-days rather by ignoration than by formal denial of God. This, however, is not a new feature in any atheism really worthy of being styled scientific. Even as Mr. Darwin verbally recognises a Creator, although

without assigning to Him any share in creation, even so Kant, when more than a century ago undertaking, in his 'General Natural History and Theory of the Celestial Bodies,'[1] to account for the constitution and mechanical origin of the universe on Newtonian principles, spoke of the elements as deriving their essential qualities from the 'eternal thought of the Divine Intelligence,' without, however, crediting the said Intelligence with having interposed in order to carry out His thoughts. 'Give me matter,' he says, 'and I will build the world;' and without other data than diffused atoms of matter endowed with simple attractive and repulsive forces, he proceeds to expound a complete cosmogony.

He pictures to himself the universe as originally an infinite expansion of minutely subdivided matter, and supposing a single centre of attraction to be somewhere therein set up, he endeavours to show that the result must be a prodigious central body surrounded by systems of solar and planetary worlds in all stages of development. 'In vivid language,' says Professor Huxley,[2] 'he describes the great world-maelstrom widening the margin of its prodigious eddy in the slow progress of millions of ages, gradually reclaiming more and more of the molecular waste, and converting chaos into cosmos.' Then, fixing his attention more particularly on our own system, he accounts for the relation between the masses and densities of the planets and their distances from the sun, for the eccentricity of their orbits, for their rotation, for their satel-

[1] Of this treatise, no English or French translation has, I believe, been published. For my own very limited acquaintance with it, I am indebted to the extreme kindness of my friend, Professor Croom Robertson, who has most obligingly favoured me with a manuscript version of the portion referred to in the text.

[2] 'Lay Sermons,' p. 240.

lites, for the general agreement in the direction of rotation among the celestial bodies, for Saturn's ring, and for the zodiacal light. All this he does, according to Professor Huxley, by 'strict deduction from admitted dynamical principles,' and I, well aware of my own inability to form an independent judgment on the point, gladly take so high an authority's word for it. For aught that I know, Kant's attractive and repulsive forces being admitted, the establishment of centres of attraction, and of circle within circle of revolutions round them, and all his other details, would follow naturally and of course. I limit myself to asking, Whence these simple forces?—and when Kant replies, 'From the Eternal Thought of the Divine Understanding,' I should be the last to criticise if his answer stopped there. Unfortunately, he adds that the forces were 'evolved without purpose'; in other words, that the Intelligence which thought them into existence failed to think of any purpose for them. 'Matter,' he proceeds, 'is purely *passive*, yet, nevertheless, has in its simplest state a *determination* towards the assumption of a more perfect constitution in the way of natural development, whereby it *breaks up* rest, *stirs* up nature, gives to chaos shape.' For the elements whereof this passively stirring up matter is composed 'have native powers of setting each other in motion, and are to themselves a spring of life;' and when, having of course being previously dead, they have given themselves life, they forthwith begin to attract each other with a strength varying with their varying degrees of specific gravity. The scattered elements of the denser sort collect by attraction all particles of less specific gravity out of their immediate neighbourhood, and are themselves similarly collected by particles of still denser

sort, these again by others denser yet, and so on, until, as results of this particular action, several masses are formed which in like manner would converge towards and be united with the largest and densest of their number, were it not that the counter principle of repulsion now comes into play. This principle—familiarly exemplified in the elasticity of vapours, the emanations from strong smelling substances, and the expansion of all spirituous substances—causes the vertical movements of the converging masses to be deflected laterally, so as ultimately to enclose the central mass within circles which, at first intersecting each other in all directions, are at length, by dint of mutual collision, made all to revolve in the same direction, and nearly the same plane.

Now I most earnestly protest against being suspected of what in me would be the intolerable impertinence of desiring to cast ridicule on these magnificent speculations, the grandeur of which I thoroughly appreciate so far as my scant mathematics enable me to follow them. I take exception to them only because the language in which they are couched seems to imply that operations, of whose nature one of the most powerful of human intellects could, at its utmost stretch, catch only a faint hazy inkling, may yet have been initiated and perfected without the intervention of any intellect at all. This is a falsism against which my respect for philosophy and philosophers makes me only all the more indignant when I find any of the latter falling into it, as those of them inevitably must who, busying themselves, early or late,

> With a mighty debate,
> A profound speculation about the creation
> And organical life, and chaotical strife,
> With various notions of heavenly motions,

> And rivers and oceans, and valleys and mountains,
> And sources of fountains, and meteors on high,
> And stars in the sky,—propose by and bye,

like John Hookham Frere's Aristophanic Birds,

> If we'll listen and hear,
> To make perfectly clear

how creation took place without a conscious Creator. All their fancied solutions of this hopeless puzzle have one feature in common—a family likeness which the wickedest wit finds it difficult to caricature. There is a note to Frere and Canning's 'Loves of the Triangles' which the reader will be grateful to me for transcribing here, the more frequently he may have laughed at it already, laughing now all the more, and laughing heartily at it now though he may never have before.

It begins by tracing the genesis or original formation of *Space* to a single point, in the same manner as the elder Darwin had, in his 'Zoonomia,' traced the whole organized universe to his six Filaments. It represents this primeval Point or *Punctum saliens* of the universe, after '*evolving itself by its own energies*, to have moved forwards in a right line *ad infinitum* till it grew tired.' Whereupon, 'the right line which it had generated would begin to put itself in motion in a lateral direction, describing an area of infinite extent. This area, as soon as it became conscious of its own existence, would begin to ascend or descend, according as its specific weight might determine, forming an immense solid space filled with vacuum, and capable of containing the present existing universe.'

> Thus slow progressive points protract the line,
> As pendant spiders spin the filmy twine:
> Thus lengthened lines impetuous sweeping round,
> Spread the wide plane, and mark its circling bound;
> Thus planes, their substance with their motion grown,
> Form the huge cube, the cylinder, the cone.

It then proceeds as follows :—

'SPACE being thus obtained, and presenting a suitable *nidus* or receptacle for the *generation* of *chaotic matter*, an immense deposit of it would gradually be accumulated; after which the filament of fire being produced in the chaotic mass by an *idiosyncrasy* or *self-formed habit* analogous to fermentation, explosion would take place, suns would be shot from the central chaos, planets from suns, and satellites from planets. In this state of things, the filament of organization would begin to exert itself in those independent masses which, in proportion to their bulk, exposed the greatest surface to the action of light and heat. This filament, after an infinite series of ages, would begin to ramify, and its viviparous offspring would diversify their forms and habits so as to accommodate themselves to the various *incunabula* which nature had prepared for them. Upon this view of things, it seems highly probable that the first effort of Nature terminated in the production of vegetables, and that these being abandoned to their own energies, by degrees detached themselves from the surface of the earth, and supplied themselves with wings and feet, according as their different propensities determined them in favour of aerial or terrestrial existence. Others, by an inherent disposition to society and civilisation, and by a stronger effort of volition, would become men. These in time would restrict themselves to the use of their hind feet; their tails would gradually rub off by sitting in their caves or huts as soon as they arrived at a domesticated state; they would invent language and the use of fire, with our present and hitherto imperfect system of society. In the meantime, the *Fuci* and *Algæ*, with the Corallines and Madrepores, would transform themselves

into fish, and gradually populate all the submarine portions of the globe.'[1]

Although the writers of this delicious drollery seem to have had Dr. Erasmus Darwin only in view, they could not, we thus see, parody his peculiar crotchets without hitting off not less neatly some of the corresponding extravagances of both earlier and later expounders of Nature. Nature is a phrase which, greatly to the confusion of those who so employ it, is habitually used simultaneously in two quite opposite senses, so as to denote at the same time both the agency in virtue of whose action the universe exists, and likewise the universe itself which results from that action. Nature, in either signification, becomes to a great extent interpretable when the agency so designated is credited with sufficient sense to foresee and to intend the results of its own action. On that condition, although among the many unsolved problems she may continue to present there will be some evidently lying beyond the limits of human comprehension, there will be none running counter to human reason. Except on that condition, the universe is not simply uninterpretable, it is a bewildering assemblage of irreconcilable certainties. Philosophy's choice lies between such patent truisms as that there can be no force but living force, no *vis* but *vis vivida*, no *vis inertiæ* otherwise than metaphorically, and such blatant falsisms as that inertness and exertion may coincide, unintelligence generate intelligence, agency of whatsoever sort produce, merely by its own act, and merely out of its own essence, other agency capable of higher action than its own. Philosophy, when with these sets of alternatives before her she deliberately chooses the latter, becomes

[1] 'Beauties of the Anti-Jacobin,' 1799, pp. 214-6.

Scientific Atheism, all the varieties of which have one point in common, resembling each other in their proneness to rush upon and embrace demonstrable impossibilities for the sake of avoiding a few things hard to be understood. One variety, however, the Comtist, far exceeds all the rest in the lengths to which it is carried by this propensity.

IV.

IF, in speaking as I am about to do of Comtism, I commit —heedless of Mr. Lewes' solemn warning—the grave offence of speaking confidently about a writer whom I have never read, I may at least plead in extenuation of my fault, that, although my knowledge of that writer be confessedly merely an echo of what others have said of him, those others, at any rate, far from being his antagonists, are two of the most ardent of his not undiscriminating admirers. It is from Mr. Mill[1] and from Mr. Lewes[2] himself that I have derived the notions of Comtist philosophy that suggest to me the following notes.

I lay no stress on certain flaws in the fundamental propositions that 'we have no knowledge of anything but phenomena, and that our knowledge of phenomena is only relative, not absolute; that we know not the essence nor the real mode of production of any fact, but only its relations to other facts in the way of succession or similitude; that the constant resemblances which link phenomena together, and the constant sequences which unite them as antecedent and consequent, are all we know about them, and that their causes, whether efficient or final, are un-

[1] 'Auguste Comte and Positivism,' *passim.*

[2] 'History of Philosophy,' 4th edition, vol. ii. pp. 654–735.

known and inscrutable.' I will only suggest that our mere consciousness of possessing some knowledge of phenomena is itself a knowledge distinct from the knowledge which constitutes its subject—distinct, that is, from the knowledge of phenomena; that if it were possible for us to be aware of only one single fact, we should know something about that fact, notwithstanding that there were no other facts which it could be perceived to have preceded or followed, or to which it could be likened, even as a polype with a stomach-ache would know something about a stomach-ache, although ignorant that it had a stomach, and oblivious of any former sensation, whether painful or pleasurable; and that if the causes of phenomena be utterly unknown, our ignorance of them ought not to be so signified as to sound like knowledge, as it does when resemblances are said to link, and sequences to unite, phenomena together, thereby warranting the inference that one phenomenon succeeds another *because* the two are so linked and united.

These, however, are trifles—mere spots on the sun one might say, were but the surface on which they appear altogether sunlike—and I leave them without additional remark except that, although it may perhaps have been hypercritical to point them out, still the language of a new philosophy, claiming to supersede all old ones, ought to be proof even against hypercriticism. I pass on to a generalisation, termed by Mr. Mill 'the key to Comte's other generalisations: one on which all the others are dependent, and which forms the back-bone, so to speak, of his philosophy,' insomuch that 'unless it be true he has accomplished little.' This is the so much vaunted discovery that all human thought passes necessarily through

three stages, beginning with the theological, and proceeding through the metaphysical to the positive. These three terms, however, in the novel sense in which they are used by Comte, stand very urgently in need of definition. By the theological is to be understood that stage of the mind in which the facts of the universe are regarded as governed by single and direct volitions of a being or beings possessed of life and intelligence. It is the stage in which winds are supposed to blow, seas to rage, trees to grow, and mountains to tower aloft, either because winds, seas, trees, and mountains are themselves alive and so act of their own accord; or because there is a spirit dwelling in each of them which desires that it shall so act; or because each separate class of objects is superintended by an out-dwelling divinity, which similarly desires; or, finally, because one single divinity, supreme over all things, initiates and maintains all the apparently spontaneous movements of inanimate bodies. In the metaphysical stage, phenomena are ascribed not to volitions, either sublunary or celestial, but to realised abstractions—to properties, qualities, propensities, tendencies, forces, regarded as real existences, inherent in but distinct from the concrete bodies in which they reside; while the characteristic of the positive stage is the universal recognition that all phenomena without exception are governed by invariable laws, with which no volitions, natural or supernatural, interfere. These being the three stages, the discovery of which as a series necessarily passed through by human thought in its progress towards maturity, constitutes one of Comte's chief glories, I almost tremble at my own audacity, shrinking from the sound myself am making, when by inexorable sense of duty constrained to declare that the grand discovery is after all merely that of a distinction without a difference.

What Comte chiefly condemned in the metaphysical mode of thought, are the conception of mental abstractions as real entities which exert power and produce phenomena, and the enunciation of these entities as explanations of the phenomena; and certainly 'it is,' as Mr. Mill says, or rather was, previously to his own ingenious solution of it, 'one of the puzzles of philosophy, how mankind, after inventing a set of mere names to keep together certain combinations of ideas and images, could have so far forgotten their own act as to invest these creations of their will with objective reality, and mistake the name of a phenomenon for its efficient cause.' Those natural laws, however, on which Positivism relies—are not they as purely mental abstractions as the essences, virtues, properties, forces, and what not, for which it is proposed to substitute them? Yet since Positivism regards these laws as 'governing' phenomena, and having phenomena 'subject' to them, must it not necessarily regard them likewise as realised abstractions, as real entities? Plainly, if its language be taken literally, its professors must acknowledge that it does, unless they prefer to stultify themselves by propounding such unmitigated nonsense as that power may be exercised, and phenomena produced, by *non*-entities. But if so, what else is Positivism than another form of that very metaphysicism which it condemns? and a form, too, peculiarly obnoxious to Mr. Mill's caustic remark that 'as in religion, so in philosophy, men marvel at the absurdity of other people's tenets, while exactly parallel absurdities remain in their own, and the same man is unaffectedly astonished that words can be mistaken for things, who is treating other words as if they were things every time he opens his mouth.'

Possibly, however, it may be replied that 'government by natural laws' is a phrase which Positivists never use except metaphorically, and by which they never mean more than certain successions of events.[1] Very well. Either, then, they acknowledge no real government of phenomena at all, in which case to speak of phenomena as governed by law is, if not a purely gratuitous mystification, as glaring an instance as can well be conceived of a 'bare enunciation of facts, put forward as a theory or explanation of them: or, if they do recognise real government, then they must suppose that, behind those mere mental abstractions, laws or order of Nature, there must be some lawgiver or other being that originally issued the laws, or ordained the order, and still enforces them, or maintains it. But if this be the positivist faith, then, that we may discover its other self, we have only to go still further back; as far back, however, as to the theological stage, supposed to have been so early left behind, yes, even unto the deities or deity that the metaphysical entities had displaced. Positivism, in short, is in this dilemma: either the mode of thought claimed by it as peculiarly its own is simply that process so justly ridiculed by Comte himself as the 'naïf reproduction of phenomena as the reason for themselves,' and by Mr. Lewes as 'a restatement' (by way of explanation) 'of the facts to be explained;' or it is at any rate nothing more than a return, either to the metaphysical or to the theological mode of thought, according as one or the other is adopted of the only two interpretations that can possibly be placed on its own nomenclature. A new mode

[1] Not that so restricted a meaning can, with any propriety, be placed on positivist definitions of law. See, for instance, that of Mr. Lewes ('History of Philosophy,' vol. ii. p. 701), who defines law to be 'the invariable relation between two distinct phenomena, according to which one depends on the other.'

it certainly is not. It is either no mode of thought at all, but merely an empty form of words; or it is at best only a new name for one or other of two old-fashioned modes, both of which its author denounces as false from the beginning, and now worn out and obsolete into the bargain.

Of other features of Comtist philosophy it would be out of place to speak here,[1] where, indeed, that philosophy would

[1] Some few additional random remarks, however, though not permissible in the text may, perhaps, be less inappropriate in a note.

My scientific deficiencies do not prevent my understanding or, at least, fancying I understand, that Comte's famous 'Classification of the Sciences' may be extremely serviceable as indicating in what order the sciences may most profitably be studied. That a student's general progress would be swifter and surer if, before entering on physics or chemistry, he had already made considerable progress in algebra, geometry, and mechanics, than if he commenced all five sciences simultaneously, seems probable enough. If, however, the classification be intended also to indicate historically the order in which the sciences have actually been studied, I cannot but suspect it to be misleading. Certainly, if knowledge of number was the earliest knowledge acquired by man, those savage races which have not even yet learnt how to count beyond four, must have been content with very few lessons in arithmetic when turning off to other branches of learning.

As to the measure of success that attended Comte's scheme of creating a Philosophy of General Science, I presume not to utter one syllable of my own, preferring to cite what Mr. Mill says of that 'wonderful systematization of the philosophy of all the antecedent sciences from mathematics to physiology, which, if he had done nothing else, would have stamped him on all minds competent to appreciate it as one of the principal thinkers of the age.' In all sincerity, I say that the mere conception of the enterprise, whose vastness is so luminously expounded by Mr. Lewes, in the last edition of his 'History of Philosophy,' seems to me to betoken superior genius. I feel, as it were, simply awe-struck in the presence of an intellectual ambition, that within the brief span of one human life could aspire to a mastery over all the sciences, sufficient, first for co-ordinating the fundamental truths and special methods, and so obtaining the philosophy of each, and then for co-ordinating the manifold philosophies so obtained, and—by condensing them all into one homogeneous doctrine, and blending them into one organic whole, whereof each part would be seen to depend on all that preceded, and to determine all that succeeded—transforming all science into philosophy.

One point however remains on which I shall speak with some confidence, that, namely, of the inclusion among 'Comte's titles to immortal fame' of the creation of a Science of Sociology. 'What the law of gravitation is to astronomy, what the elementary properties of tissues are to physiology,' that,

not have been mentioned at all but for its having been transformed by its author into a religion, and that, too, an

says Mr. Lewes, in the opinion of Comte's disciples, 'is the law of the three stages to sociology.' But if, as I have shown, there are not really three but only two stages, the so-called third stage being simply a return to either the second or the first, the law of the three stages cannot be much of a law, nor the science of which it is the essence much of a science.

Mr. Lewes, nevertheless, maintains that M. Comte created Social Science. Mr. Mill considers that he did not create it, but only proved its creation to be possible. With all possible deference, I submit that what he really did was to prove its creation to be impossible.

In a passage of Mr. Mill's 'Positivism,' quoted with approval in Mr. Lewes's 'History of Philosophy,' and presumably, therefore, expressing the sentiments of both writers, Comte is described as pronouncing inappropriate to the Science of Society, the method universally admitted to be proper to all other sciences—that, namely, of obtaining by induction the laws of the elementary phenomena, then, from these laws thinking out deductively those of the complex phenomena, and, finally, of verifying by specific observation the laws obtained by deduction. Among social phenomena, he is described as arguing, the elementary ones are human feelings and actions, the laws of which are the laws of universal human nature. But the human beings, on the laws of whose nature social facts depend, are not abstract or universal, but historical human beings, already shaped and made what they are, not by the simple tendencies of universal human nature, but by the accumulated influence of past generations of human society. This being the case, the laws of universal human nature evidently cannot serve as materials, whence it would be possible for any powers of deduction, starting from the bare conception of the Being Man, to predict beforehand how successive generations of men would feel and act. Wherefore, in order to get at social laws, we must reverse the ordinary method, seizing upon any generalizations which the facts of history, empirically considered, will supply, and then using the universal laws of human nature for the verification of these generalizations.

I will not linger over the glaring inconsistency involved in the conclusion thus arrived at, of appealing, for the verification of empirical generalizations, to a species of deduction confessed to be impracticable for want of the requisite materials. I prefer to show that from Comte's own premises, as rendered by Mr. Mill, necessarily results a separate conclusion, absolutely fatal to his sociologically creative pretensions. According to him, as we have seen, the laws of elementary social facts, or of human actions and feelings, are the laws of universal human nature, which latter can, of course, be no other than whatever habits of invariably, in given circumstances, feeling and acting in given modes, may be common to all mankind. But it is admitted that the particular generation of human beings at any time existing must, by the accumulated influence of preceding generations, have been rendered very different from every preceding generation: and nothing is more certain than that two generations differing widely from each other in character, would, in many given

atheistical religion—the 'Religion of Humanity.' To myself, as to most people, a religion without a God is a contradiction in terms. To constitute what is almost universally understood by religion it does not suffice that there be a 'creed or conviction claiming authority over the whole of human life: a belief or set of beliefs deliberately adopted respecting human destiny and duty, to which the believer inwardly acknowledges that all his actions ought to be subordinate:' nor that there be in addition 'a sentiment connected with this creed or capable of being invoked by it, sufficiently powerful to give it, in fact, the authority over human conduct to which it lays claim in theory:' nor yet that there be, moreover, 'an ideal object, the believer's attachment and sense of duty towards which are able to control and discipline all his other sentiments and propensities, and prescribe to him a rule of life.'[1] That such an object is fully capable of gathering round it feelings sufficiently strong to enforce the most rigid rule of life, will certainly not be denied by me, privileged as I am to count among my friends more than one whose whole life is little else than a life of devotion to an object, 'the general

circumstances, not only not feel and act in precisely the same, but would inevitably feel and act in widely different, manners. Nor is this all. The circumstances by which any generation is surrounded have been partly shaped for it by preceding generations, partly modified by itself—so that it is not possible for any two generations ever to find themselves in the same circumstances. Wherefore, as there never can be a repetition of either men or of circumstances precisely the same, it is manifestly impossible for any habits of feeling and thinking, in given modes in given circumstances, to be common to any two generations of men, still less to universal mankind. In other words, there cannot possibly be any laws of human nature: and if no laws of human nature, then no laws of elementary social facts; and if no laws of elementary social facts, then no laws of complex social facts; and if no laws of social facts, elementary or complex, then no single particle of material wherewith to build up the Science of Society or Sociology.

[1] 'Auguste Comte and Positivism,' pp. 133-4.

interest of the human race,' plainly incapable of affording them in exchange that 'eternity of personal enjoyment' to which ordinary devotees look forward as their reward, and whose virtue I honour as approaching the sublime, on account of its independence of all the props and stimulants which ordinary virtue finds indispensable. But the sublimest virtue does not of itself constitute religion. For, besides the 'creed,' 'conviction,' and 'sentiment' indicated above, there is needed some suitable object of worship to which the soul may alternately bow down in humble reverence, and look up in fervent love—some being to whom its prayer, praise, and thanksgiving may be fittingly addressed. This want, recognised—as one of the few who do not recognise it admits—by nine out of every ten persons, was distinctly recognised by Comte, who, however, attempted to supply it by pointing, not to God, but to Man. His reason for this was not a conviction that there is no God. On the contrary, he habitually disclaimed, not without acrimony, dogmatic atheism; and once even condescended so far as to declare that 'the hypothesis of design has much greater verisimilitude than that of a blind mechanism.' But in the 'mature state of intelligence' at which his mind had arrived, 'conjecture founded on analogy did not seem to him a basis to rest a theory upon.' He preferred a religious theory without a basis, and therefore adopted one as destitute of support as the tortoise on which stands the earth-upholding elephant of Hindoo mythology; selecting, as the 'Grand Être' to be worshipped, 'the entire Human Race, conceived as a continuous whole, past, present, and future.' For this great collective *non*-existence, this compound of that which is, that which has been but has ceased to be, and that which

is not yet, he elaborated a minute ritual of devotional observances, and would, if he had had the chance, have consecrated a complete sacerdotal hierarchy, subordinated to himself as supreme pontiff. Having, for fear of recognising what possibly might not be, begun by, wilfully and with his eyes open, recognising what could not possibly be, he proceeded to invest this sanctified non-existence with precisely those attributes best calculated to render it unfit to receive the admiration he prescribed for it. That feeble Humanity—the actually living portion thereof, that is—may need and be the better for our services, which Divine Omnipotence of course cannot be, was distinctly urged by him as a reason why *prayers*, or at least those outpourings of feeling which he so designated, should be addressed to the former and not to the latter. That Humanity is in a constant state of progress, so that both the collective mass and choice specimens of each successive generation of men must always be superior to the corresponding masses and specimens of all previous generations, is a prime article of the Comtist creed; but not the less is it an imperative injunction of the Comtist rubrick that religious homage shall be paid, not only to the collective 'Grand Être' of Humanity, but also to individual worthies of past ages—that superiors shall consequently fall down before, and worship, and take as models, their intellectual and moral inferiors. The fact of a religion made up of tenets like these having been thought out by one of the profoundest of reasoners does not prevent its being the very perfection of unreason. Even though on the one side there were nothing more than some doubt whether Deity might not exist, still with complete certainty on the other of the non-existence of 'Humanity,' Deity ought in fairness to have at least the

benefit of the doubt. In selection for adoration, that which only perhaps may be, at any rate deserves to be, preferred to that which positively is not. The excess of superstition with which St. Paul reproached the Athenians, for raising an altar to the 'Unknown God,' looks like excessive circumspection, beside the solemn dedication of temples to a chimera known not to be. Nay, even Isaiah's maker of graven images is at length outdone. Even he who, having hewn down a tree, 'burneth part thereof in the fire, with part thereof eateth flesh, roasteth roast, and is satisfied, warmeth himself, and saith, Aha, I am warm, I have seen the fire; and with the residue maketh a god, yea, his graven image, and falleth down unto it and worshippeth it, and prayeth unto it, and saith, Deliver me, for thou art my god'—even he has at last found more than his match in irrationality. For he has at least before him a visible tangible block of wood, not the mere memory of one that has long ago rotted, nor the dream of one that is yet to grow, whereas that mental figment, Consecrated Humanity, is not even a real shadow, but only a fancied one, a shadow cast by no substance. And it is to Comtists of all people—intellectual salt of the earth as they are—that this figment is recommended for adoration—yes, to those who, pharisaically standing aloof from the common herd, thank their imaginary substitute for God, or whatever else it is they deem thankworthy, that they are not blind as other men are, and least of all as those dazed metaphysicians who actually personify their own mental abstractions. No wonder that such extreme provocation should try the patience of all but the stanchest disciples. No wonder that Mr. Lewes himself should seem half inclined to apostrophise his quondam master in words

resembling those once addressed to Robespierre, 'Avec ton Grand Être, tu commences à m'embêter.'

Here make we one more pause. This chapter's theme is, as was betimes premised, not the strength of theism, but the weakness of atheism. I have in it attempted to execute a design which, according to Boswell, was conceived by Lord Hailes, and approved by Dr. Johnson, that of writing an essay, *Sur la crédulité des incrédules*, and I think I have succeeded so far as to show that, if any one who can swallow atheism affects to strain at theism, it cannot, at any rate, be for want of a sufficiently capacious gullet.

CHAPTER VI.

LIMITS OF DEMONSTRABLE THEISM.

Thought without Reverence is barren. The man who cannot wonder, who does not habitually wonder (and worship), were he president of innumerable Royal Societies, and carried the whole *Mécanique Céleste* and Hegel's *Philosophy*, and the epitome of all laboratories and observatories with their results, in his single head, is but a pair of spectacles, behind which there is no eye. Let those who have eyes look through him; then he may be useful.—*Sartor Resartus.*

'I WOULDN'T mind,' said once a representative of extreme heterodoxy, in debate with a champion of its diametrical opposite—'I wouldn't mind conceding the Deity you contend for, were it not for the use commonly made of him after he is conceded.' And no doubt that use is such as might well provoke a saint, provided the saint were likewise a philosopher. To whatever extent it be true that man was created in the image of God, it is certain that in all ages and countries God has been created in the image of man, invested with all human propensities, appetites, and passions, and expected to demean himself on all occasions as men would do in like circumstances. As popularly conceived, so long as sensual gratification was esteemed to be the *summum bonum*, he wallowed in all manner of sensual lust; when some of his more fervent worshippers turned ascetics out of disgust with fleshly surfeit, he became ascetism personified: at every stage his great delight has been flattery, and his still greater, revenge; in the exercise of power he has always been capricious and often wanton—ruthlessly vindictive against impugners of his

honour and dignity, unspeakably barbarous to unbelievers in his reality. Now, as knowledge advanced, unbelief in a God so much below the level of ordinarily virtuous men advanced equally, quickening its pace, too, as the particular branch of knowledge styled 'physics' spread, and, spreading, exposed the utter impossibility of many of the fables in which theological views had been expressed. Wherefore, theological oracles have in every age and country been apt to confound scientific inquisitiveness with unbelief, and to denounce *physical* science especially as a delusion and a snare, and its cultivators as impostors none the less mischievous for being at the same time dupes. Of course, the latter have not been slow to return the compliment. Hearing the truths discovered by them stigmatised as falsehoods, they naturally enough retorted the charge of falsity against the divine authorities in whose name it was made. Finding war waged against them by every religion with which they were acquainted, they naturally enough in turn declared war against all religion, even with that form thereof which underlies every other except when sufficing to itself for superstructure as well as base. Natural enough this, for *humanum est errare*; but very humanly erroneous withal, for to include Deity itself in the same denial with pseudo-divine attributes is about as sagacious a proceeding as to refuse to recognise the sun at midday on account of his not appearing in Phœbus's chariot and four.

When religion on the defensive declares herself opposed to reason, so much the worse for religion. She is thereby virtually surrendering at discretion, since to appeal to her only other resource—revelation—is to beg the whole subject in dispute. Similarly, the worse and still less excusable is it for science to declare herself irreconcileable with religion, for she, too, is thereby slighting reason. It is

only by forsaking the single guide in whom she professes to trust, and blindly giving herself up to angry prejudice, that she can fail to discover the rational solidity of so much of every religion as consists of theism.

For this, as we have seen, the argument from design abundantly suffices, although the only absolute certainty thence deducible be that the universe must have an author or authors fully equal to its original construction, its subsequent development, and its continued maintenance. Even if it be not inconceivable, notwithstanding that the chances to the contrary be many times infinity to one, that the mere restlessness of some utterly unintelligent force may have fabricated all material structures, and imparted to all their movements certain orderly successions, it is still manifestly impossible for unintelligence to have brought forth intelligence—for the speculative, critical, carping spirit of man to have been generated by that which has no speculation in its eyes, nor any eyes, to have speculation in; impossible, in short, for the creature to be more richly endowed than its creator. Since numerous embodied intelligences actually exist, they must have been preceded by intelligence capable of creating them and all other existing intelligences that have not eternally existed; and it is simply impossible that creative intelligence, whose creatures owe to it whatever intelligence they possess, should on any occasion have exhibited a want of intelligence which they are competent to detect.

But although it be thus demonstrably certain that an author of the universe exists, it does not follow that there is only one. As to this no proof positive, only probabilities, can be adduced; but the probabilities are of an amount all but equivalent to certainty. They are forcibly urged

by Mr. Mill. Many exactly uniform occurrences, he observes, are more naturally referred to 'a single, than to a number of wills precisely accordant.' But the classes of uniform occurrences being exceedingly numerous, if there were a separate will for each class, there would be equally numerous wills, and 'unless all these wills were in complete harmony (which would itself be the most difficult to credit of all cases of invariability, and would require beyond anything else the ascendancy of a supreme Deity),' it would be 'impossible that the course of phenomena under their government should be invariable.' Every fresh appearance of resemblance extending through all nature 'affords fresh presumption that the whole is the work, not of many, but of the same hand, and renders it vastly more probable that there should be one indefinitely foreseeing Intelligence and immoveable Will than that there should be hundreds and thousands of such.'[1] I will not run the risk of weakening this reasoning by expansion. Its obvious inference that, there being a God, there cannot be more than one, could not be set forth more irresistibly.

That the wisdom of the Creator cannot be less than the amount thereof manifested in His works is a self-evident proposition, which none will be hardy enough directly to dispute. There is, however, one critic, of great ability and yet greater daring, who appears to doubt whether the wisdom manifested in the universe is anything to speak of. Mr. Lewes' faculty of veneration is, I suspect, but imperfectly developed, since 'the succession of phases which each (animal) embryo is forced to pass through,' is sufficient to give its action pause. 'None of these phases,' he remarks, 'have

[1] 'Auguste Comte and Positivism,' pp. 25-8.

any adaptation to the future state of the animal, but are in positive contradiction to it, or are simply purposeless; *many* of them have no adaptation even to its embryonic state; whereas *all* show stamped on them the unmistakable characters of *ancestral* adaptations and the progressions of organic evolution.' 'What,' he asks, 'does this fact imply?' 'There is not,' he continues, 'a single known example of an organism which is not developed out of simpler forms. Before it can attain the complex structure which distinguishes it, there must be an evolution of forms which distinguish the structures of organisms lower in the series. . . . On the hypothesis of a plan that pre-arranged the organic world' (by no means, however, necessarily in types that could not change, but rather in types adapted and calculated to change), 'nothing,' he considers, 'could be more unworthy of a supreme intelligence than this *inability* to construct an organism at once without making several *tentative* efforts, undoing to-day what was so carefully done yesterday, and repeating for centuries the same *tentatives* and the same *corrections* in the same succession.' 'Anthropomorphists,' he says, 'talk of "The Great Architect," emphasising the name with capitals,' but 'what should we say to an architect who was unable, or, being able, was obstinately unwilling, to erect a palace except by first using his materials in the shape of a hut, then pulling it down and rebuilding them as a cottage, then adding storey to storey and room to room, not with any reference to the ultimate purposes of the palace, but wholly with reference to the way in which houses were constructed in ancient times? What should we say to the architect who could not form a museum out of bricks and mortar, but

was forced to begin as if going to build a mansion, and, after proceeding some way in this direction, altered his plan into a palace, and that again into a museum? Would there be a chorus of applause from the Institute of Architects, and favourable notices in the newspapers of this profound wisdom?'[1]

Notwithstanding the exulting tone in which these questions are put, and which seems to imply that in their proposer's opinion they are unanswerable, they may, I think, be very summarily disposed of. Whatever other comments might be made on the conduct of an architect who should build in the complex manner suggested, surely the very last thing said would be that he did not know how to build in simpler wise. His having actually built a palace would be decisive proof of his knowing how to build a palace; and of all queer reasons for questioning his possession of that much architectural knowledge, about the queerest would be the fact of his having built, not a palace only, but a hut and cottage in addition. And if, adopting a still more complicated style, he should begin by so constructing a hut that, if left to itself, it would draw up brick and mortar from the earth, and grow into a cottage, and then go on growing and adding storey to storey till it became a palace, this surely would be a proof not of less, but of infinitely more, architectural knowledge than if he had commenced and completed the palace with his own hands. Not unwarrantably, perhaps, may Mr. Lewes, reflecting that his own and every other human organism's genesis has consisted of at least three stages, oval, fœtal, and infantine, wonder why he was not formed all at once, 'as Eve was mythically affirmed to be

[1] 'Fortnightly Review' for June 1868, 'Mr. Darwin's Hypotheses.'

taken from Adam's rib, and Minerva from Jupiter's head,' and why he was not brought forth full dressed in an indefinitely expansible suit of clothes. Not quite inexcusably, perhaps, might he conceive the reason to be some mere whim or humour of his Maker, though there might be more gratitude in conjecturing that the triple process was adopted for the purpose of assisting biological enquirers like himself in their special researches. From so practised a logician, however, about the very last thing to have been here expected was that he should suggest creative 'ignorance and incompetence' as the only apparent alternative to denying a Creator altogether, as if incapacity for a comparatively easy process were a likely reason for choosing one greatly more difficult. It might have occurred to Mr. Lewes that, if there were any absurdity in the choice, the Being who made him and bestowed on him the faculty of perceiving the absurdity, could not have failed himself likewise to perceive it and consequently to avoid it.

Of divine power, the measure or measurelessness is obviously identical with that of divine wisdom. Both attributes must be at least co-extensive with the universe; both consequently illimitable. Divine goodness, moreover, inasmuch as the creature's moral ideal cannot be superior to his Creator's, must be at least as vast as human imagination: God must be at least as good as man can conceive Him. But how, by goodness so transcending, conjoined with immeasurable might, can the co-existence of evil be tolerated? To this last, and perhaps greatest, among the many great questions brought forward for renewed discussion in these pages, I have long had by me an attempt at a reply, which, finding myself unable either to strengthen or shorten it by turning it into prose, I venture to submit in its original rhythmical form.

A Voice came to me as I sate apart,
Pondering the burthen of life's mystery
In dim perplexity, with troubled heart.
With whisper weak and faint it came to me,
Like feeble glimmer of the struggling moon
To wildered mariner on midnight sea:
With whisper weak at first, but strengthening soon,
Like the moon's beam when filmy clouds disperse,
And through my scattered doubts, with quiet tune,
Uttering in clear, apocalyptic verse,
Truth, which for comfort and monition sent,
E'en as the voice revealed, do I rehearse.

'What art thou? Whence derived? With what intent
Placed where perpetual hindrances exhaust
Thy wasted strength, in baffled effort spent?
Where in blind maze, with crafty windings crossed,
With stumbling-blocks beset, with pitfalls strewed,
Thou wanderest, in endless error lost;
Athirst beside glad rivers that elude,
With mocking lapse, thy tantalized pursuit,
And hungering where gilded husks delude
With bitter ashes as of Dead Sea fruit,
Ashes of Hope, but seed of Discontent,
That rears its upas growth from blighted root?
Around, thou hear'st Creation eloquent,
Hymning creative attributes, and seest
The starry marvels of the firmament,
And marvels of the nearer earth, released
By impulse from within, not dimly shown,
Nor plainlier in the greatest than the least:
And, through the known discovering the unknown,
Acknowledgest thy Maker, power supreme,
Might, and dominion, deeming His alone.
Nor His the lax dominion mayst thou deem
That builds up empire, and when built, neglects.
Lo! where, afar, sidereal orbits gleam,
What first impelled, impelling still, directs:
Urges and guides each solar chariot,
The mundane mass of every globe connects,

By its own energy cohering not,
E'en as dead leaves, decaying languidly,
Not from themselves derive the force to rot.

'All-strengthening, all-sustaining Deity,
Diffused throughout the infinite, abides,
Dwells and upholds:—then, haply, dwells in thee?
Yea, verily. Within thy frame resides
What, by its movement only mayst thou know.
The circling blood, thy being's ambient tides,
Is't thine own will that bids them ebb and flow,
And from their inundating flood depose
Organic germs, whence health and vigour grow?
Yet though such witness serve thee to disclose
In human tenement divine abode,
Not thine be the material creed that shows
The spirit's birthplace in the moulded clod;
Not thine the pantheist raving, that because
God dwelleth with thee, thou thyself art God.
Bethink thee—is't self-reverence that o'erawes
Thy prostrate soul, and from thy faltering tongue,
Subdued, involuntary homage draws?
And when by harrowing pang thine heart is wrung,
Is't for self-aid thy wandering eyes inquire,
Heavenward, at length, in fervid suppliance flung?
And from thy native slough of sensual mire,
Is't to the mark of thine own purity
Thy loftier aims and holier hopes aspire?
Harshly thy fleshly fetters bear on thee,
In dark and dreary prison-house confined,
Cramped and diseased with long captivity,
And hath divine Intelligence designed
That noisome dungeon for her own restraint—
By her own act to galling bonds consigned,—
Self-doomed, with wilful purpose, to acquaint
Herself with sin and sorrow, and pollute
Æthereal essence with corporeal taint?
How doth thy helpless misery confute
That frantic boast of vain conceit, untaugh
The paltriest of its plans to execute!

Hast thou the art to add, by taking thought,
One cubit to thy stature? and hast thou,
Or such as thou, Nature's whole fabric wrought?
Not thine such vaunt—not thine to disavow
The lustre of thy genuine origin.
To the Most Highest, as thine author, bow
With rapture of exulting faith, wherein
Devotion's cravings their desire achieve,
The bright ideal that they imaged, win.
Rejoice that thus 'tis given thee to believe,—
To recognise transcending majesty,
Worthy all praise—all honour to receive:
Rejoice in that high presence, gratefully
Offering the vows that thy full heart dilate:
Rejoice that thence there floweth light, whereby
Thy emulative quest to elevate
Thitherward, where unblemished holiness
Irradiates sovereignty, benign as great.

'But here thou pausest, scrupling to confess
A providence of aspect all benign.
Fear not that sceptic scruple to express.
Of truth, Almighty Goodness could assign
Good only to the work of His own hand,
Warmed into life by His own breath divine:
And, where unchecked Beneficence had planned
A home for creatures of a fragile race,
Evoked from nothingness at His command,
Nor care, nor want, nor anguish should have place,
Nor fraud betray, nor violence oppress,
Nor hate inflame, nor wallowing lust debase,
Nor aught be found, save what conspired to bless
The sentient clay, wrought surely for that end,—
For wherefore wrought, if not for happiness?

'Not, as some teach, for mastery to contend
With fate,—in doubtful conflict to engage,—
Struggling, in pain and peril, to ascend
Slowly, through this probationary stage,
Sore let, but tried and chastened, and thereby
Earning on earth a heavenly heritage.

Was there then need that prescience should try,
By ordeal pitiless, assured event,
Disclosed beforehand to prophetic eye?
Need was there, by austere experiment,
To test the frailty and the fall foreknown
Of man, beneath o'erwhelming burthen bent?
In this was tutelar prevision shown?
Hardly may he, in such belief confide,
Who sees his fellow myriads left to groan
In barren penance, without light or guide,
E'en from their birth by fostering vice controlled,
Doomed as they cross life's threshold—doomed untried.

'As hardly, too, may he the dogma hold
That fetters reason with a graduate chain
Of beings, linked in order manifold,
Where, to each link, 'tis given to sustain
A part subservient to the general weal,—
Duly to share the mutual burthen's strain:—
Though who from such allotment would appeal,
Could it be truth that wisdom's masterpiece
Such aid could lack, such feebleness conceal,
Suing its own constituents for release
From wrong innate, throughout its texture wove,
By hard necessity, not light caprice?
But to what purport could premonished Love
A system twined with mutual suffering weave,
When but a word all suffering would remove?
And wherefore yet delayeth the reprieve
Of Love, that doth not willingly afflict
Its children, neither wantonly aggrieve?
Can aught the gracious purpose interdict
Of Him, whose piercing eye, whose boundless sway,
No cloud can dim, no barrier restrict?
Say'st thou, "By path inscrutable, and way
Past finding out, perchance, may mercy bend
To its own use, whate'er its course would stay,
And through the labouring world high mandate send
That all things work together unto good,
Work, though by means corrupt, to righteous end?"

Beware how such conjectures must conclude.
Can means impure Omnipotence befit,
And clog the range of its solicitude?
Can finite bonds confine the Infinite?
Though man, by choice of ill, must needs offend,
Need God do ill that good may come of it?
Must havoc's mad typhoon perforce descend?
May naught else serve to fan the stagnant air?
Must captive flame earth's quaking surface rend,
Or seek escape in lava flood? and ere
Effete society new structure raise,
Must dearth or pestilence the ground prepare?
Thus is it that a parent's care purveys
His bounty, and, exacting rigorously
The price in tears, each boon's full cost defrays?
Thus, with vain thrift withholding the decree,
That from his treasury's exhaustless store
To all could grant unbought felicity?

'But haply still 'tis reasoned (and with more
Of reason's semblance were the plea maintained),
That higher yet would life's ambition soar,
Not for mere scheme of happiness ordained,
But for advance in virtue,—for the growth
By patient zeal and meek endurance gained:
That, at the table of voluptuous sloth,
Though banqueted on sweets without alloy,
Unsated were a generous nature, loth
To feast where unearned lusciousness would cloy,
Faint with the tedium of unbroken rest,
Sick with the sameness of unruffled joy:
That for more poignant pleasure, and of zest
Heightened and edged by healthful exercise,—
For scope wherein her conscious strength to test
In keen pursuit and venturous enterprise,
For dear exemplars, in whose course serene
Affection's tearful warmth might sympathise,
For these the yearning mind would languish, e'en
Though with all else that wish could name endued,
While, in her striving for self-discipline,

Foiled, and with fervid impulses imbued
Vainly, where neither aught could valour dare
Nor aught confront and challenge fortitude:
And where no outward token could declare
The hidden worth congenial heart would hail,
Hail with each kindred chord vibrating there;
Since virtue wakes not but when griefs assail,
Or travail burthens, or temptations try,
Slumbering supine, till roused by adverse gale,
In the deep sleep of moral lethargy,
Joy's fullest cup, by hope or doubt unstirred,
Curdling the while to dull satiety.

'Thus haply some have reasoned, undeterred
By reasoning, with equal emphasis
But counter aim, as readily preferred:
Since Heaven's perfection striveth not, nor is
In peril lest it lapse to apathy,
Or lassitude invade its tranquil bliss.
And were it as they deem, and righteously
Were man adjudged with his brow's sweat to eat
Bread leavened with embittering misery,
E'en then affliction's measure to complete,
Amply might pain, and want, and death suffice,
And feeling's blight, and baffled love's defeat,
And, on the altar of self-sacrifice,
Hope's withered blooms by resignation laid:
Nor were it needed that incarnate vice,
In human mould, in the same image made,
Trampled with iron hoof his fellow man,
Virtue's chastised development to aid.
For whence was Vice derived? Ere life began,
For His own offspring could their Maker trace
Their loathsome office, and beneath his ban
Place them, accurst (creating to debase),
And doom as fuel for the flames that test
A favoured few, elect by partial grace?

Elect or outcast—if alike confessed
Of the same parent, sons—brethren who bear
No differing lineaments, save those imprest

By his prevision—in their parent's care
Should not all be partakers? Should not all
Freely, alike, his nurturing guidance share?
Are any worthier? 'Tis that warning's call
Extends to them alone—'tis that to them
Alone is given vigour, wherewithal
Temptation's fraudful violence to stem—
And how shall He, who needful strength denies,
Weakness for its predestined fall condemn?
How, when the creature of His wrath replies
With feeble wail and inarticulate moan,
The sighing of that contrite heart despise?
What man amongst thy fellows hast thou known
Who, if his son ask fish, will jeeringly
Give him a serpent, or for bread a stone?
If ye, being evil, at your children's cry
Know how to give good gifts, should not much more
Your heavenly Father His good things supply
To them who ask Him? Should He not restore
A cleansed heart within them, and renew
An upright spirit? not, what they implore
Reversing, and restraining, lest they do
The good they would,—constraining them withal
To do the evil they would fain eschew?
How wilt thou to the same original
Whence all just thoughts and pure desires proceed,
Impute corrupt imaginings, whose thrall
Enslaves anew the soul but newly freed
From their pollution? Can a hybrid growth
Arise spontaneous from unmingled seed?
Are grapes upon the bramble borne, or doth
The fig bear olive berries? Canst thou show
Twin waters, sweet and bitter, issuing both
From the same fountain? Neither should there flow
Blessing and cursing from one mouth, nor yet
From the same Providence both weal and woe.

'Vile as thou art, ofttimes in thee have met
Mercy and Truth—and Peace and Righteousness
Have kissed each other; and thine heart is set

Ofttimes to follow what is just, redress
Where thou hast trespassed, rendering; ofttimes, too,
Forgiving other's trespass: to distress
Thou grudgest not its sympathetic due
Of kindly deed, or word, or mutual tears,
Nor in vain wholly labourest to subdue
The hydra host whose foul miasm blears
Thy vision, and the distant gleam obscures
That dimly through thy prison casement peers.
E'en to the darkened dungeon that immures
Thy soul, some feeble glimmer finds its way.
Crushed beneath earthly durance, still endures
Some lingering fire below that weight of clay,
Some generous zeal, some honest hardihood,
Some faith—some charity.—And whence are they?
If not of Him whose quickening breath endued
All things with life,—and, when he looked upon
What He had made, beheld that all was good:
All good,—but chiefly man, in whom alone
Some likeness of Himself—some clouded light,
From His own countenance reflected, shone.
Doth not the sun outshine the satellite?
And shall not He who in the murkiest hour
Of sin's defilement, streaks thy dreary night
With beams that bid thee, lower yet and lower
Descending, hope, perchance, to rise again,—
Say—shall not He in holiness as power
Transcend the creature whom His gifts sustain?
And here, if sneering casuist blaspheme,
And to divided nature's sovereign,
Ascribe, in nature's opposite extreme
Like eminence, and nature's God aver
In evil, even as in good, supreme,—
Heed not, or ask if man's Artificer
With His own work, in virtue matched, can prove
At once more holy and unholier?

'Yet since all good is fruit of love, and love
Worketh no ill, how still doth ill abound?
Is't haply that with love a rival strove?

Mark well this parable. In chosen ground
Only good seed a husbandman had sown,
Yet when the blade sprang up, therewith he found
Tares that amid the stifled wheat had grown.
Then knew he well, how, entering unawares,
This, while men slept, an enemy had done.
And 'tis an enemy who, scattering tares
Amid the corn sown in Creation's field,
With deadly coil the growing plant ensnares.
And no mean enemy, nor one unsteeled
For bold defiance, nor reduced to cower
Ever in covert ambuscade concealed,
But at whose hest the ravening hell-hounds scour
A wasted world, while himself prowls to seek,
Like roaring lion, whom he may devour,
And upon whom his rancorous wrath to wreak,
Sniffing the tainted steam of slaughter's breath,
And lulled by agony's despairing shriek.
For it is he who hath the power of death,
Even the devil, by whom entereth sin
Into the world, and death engendereth :
Yea ! by whom entereth whatsoe'er within
Warreth against the spirit,—sordid greed,
Pride, carnal lust, envy to lust akin,
And malice, and deceit, whose treacheries breed
Strife between brethren, and the faith o'erthrow
Of many, and the duped deserters lead,
Beneath the banner of their deadliest foe,
In rebel arms a Parent to defy,
Whom, by His gifts alone, His children know.

'Not less that Parent marks with pitying eye
The blinded rage that rivets its own chain :
Not less to His own glorious liberty
Seeks, from corruption's bondage, to regain
His erring children,—by device, or lewd,
Or threatening, lured, or goaded to their bane :
Not less to overcome evil with good
Labours, and shall therewith all things subdue
Unto Himself—but hath not yet subdued.

And wherefore? wherefore tarrieth He, while through
Eden, by daring foray oft defaced,
Marauding fiends malignant raid pursue,
Winging the turbid whirlwind's frantic haste,
Pointing the levin's arrowy effluence,
Over the mildewed harvest's hungry waste,
Breathing the fetid breath of pestilence,
And crying havoc to the dogs of war,
Let slip on unresisting innocence?
Why suffereth He that thus a rival mar
His cherished work—through devastated fields
Borne on triumphant in ensanguined car?—
Him, who with power to rescue, tamely yields
His helpless charge to persecuting hate,
Nor His own offspring from the torturer shields,
But sits aloof, callously obdurate,
While but the will is lacking to redeem,—
Him, how shall fitting stigma designate?

'But 'tis not thus thy calmer doubts esteem
The loving-kindness that with open hand
Dispenses bounty in perennial stream.
Oft hast thou proved, while in a foreign land
A sojourner, as all thy fathers were,
Thou pacest painfully the barren sand,
How o'er thy path watches a Comforter,
And scatters manna daily for thy food,
And bids the smitten rocks that barrier
The arid track, well out with gurgling flood,
And oft to shade of green oasis leads,
And, from pursuer thirsting for thy blood,
Such scanty shelter as is thine provides:
And though full oft that shelter fails, and though
Its torn defence demoniac glee derides,
Yet not for this the cheerful faith forego,
That memory of uncounted benefits
And conscious instinct's still, small tones bestow.
Charge not thy God with aught that unbefits
Tenderest compassion, nor believe that He
With hardened apathetic scorn commits

A favoured people throughout life to be
Subject to bondage. Doubt not of His will
To rescue from that galling tyranny.
Yet, if in His despite creation still
In thraldom groan and travail—what remains?
What but that strength is wanting to fulfil
His scheme of mercy? What but that He reigns,
Not as sole wielder of omnipotence,
But, o'er a world unconquered yet, maintains
Encounter with opposing influence,
Which He shall surely quell, but which can stay,
Awhile unquelled, His mightier providence.

'And doth this sadden only, or dismay?
Grieves it that He, whose follower thou art,
Rules not supreme with unresisted sway?
Or that, the progress of His grace to thwart,
Satanic might the host of hell arrays?
And doth it not a thrill of joy impart
That not alone need barren prayer and praise
Thine homage be,—thy choicest offering
The formal dues prescribed obedience pays?
Henceforth with firmer step approach thy King.
Some puny succour, thou, in thy degree,
Some feeble aid, thou, even thou, mayst bring!
In the fell conflict raging ceaselessly
Around, thou, too, mayst join—thou, too, engage
In that dread feud, twin with eternity,
Which faithful angels and archangels wage
Against the powers of darkness, to extend,
O'er realms retained in demon vassalage,
Their sovereign's pure dominion,—and to blend
All worlds beneath one righteous governance,
Into one kingdom which shall have no end.

'Wouldst thou, if haply so thou mayst, advance
That blessed consummation? Wouldst thou speed
The lingering hour of Earth's deliverance?
Arise—the naked clothe, the hungry feed,
The sick and wounded tend,—soothe the distressed.
If thy weak arm cannot protect, yet plead

With bold rebuke the cause of the oppressed,
Kindling hot shame in Mammon's votaries,
Abashed, at least, in lucre's grovelling quest;
And, in the toil-worn serf, a glad surprise
Awakening—when, from brute despondency,
Taught to look up to heaven with dazzled eyes.—
Thus mayst thou do God service,—thus apply
Thyself, within thy limit, to abate
What wickedness thou seest, or misery:
Thus, in a Sacred Band, associate
New levies, from the adverse ranks of Sin
Converted,—against Sin confederate.
Or—if by outward act to serve, or win
Joint followers to the standard of thy Lord,
Thy lot forbid,—turn, then, thy thought within:
Be each recess of thine own breast explored:
There, o'er thy passions be thy victories won:
There, be the altar of thy faith restored,
And thou, a living sacrifice, thereon
Present thyself.—This ever mayst thou do,
Nor, doing this, wilt aught have left undone.'

Here ceased the Voice, commissioned to renew
Truth, which, of old, when Bactrian sage began
Nature's dim maze to thread with slenderest clue,
Its doubtful scope and dark design to scan,
With inward whisper, hopeful witness bare,
And justified the ways of God to man.
And suddenly its warning ceased, but ere
It ceased, the scales had fallen from my eyes,
And I beheld, and shall I not declare
What my uncurtained vision testifies?
Shall coward lips the word of life suppress?
The oracle vouchsafed from Heaven disguise?
Nay, as one crying in the wilderness,
Where none else hearken, to the vacant air
And stolid mountains utters his distress,
E'en so will I too cry aloud, 'Prepare
Before Him the Lord's way. Make His path straight,'
Nor heed though none regard me, nor forbear

Though all revile, but patiently await
Till, like light breath that panting meads exhale,
And scornful zephyrs lightly dissipate,
But which, full surely, down the echoing vale,
Shall roll with sounding current, swift and loud,
My slighted message likewise shall prevail;
Entering the heart of many a mourner, bowed
Beneath despair, and with inspiring voice
Calling to hope to cleave her midnight cloud,
And bidding grief, in hope's new dawn, rejoice.

This is a creed which long since came to me after earnest inward communings, and which, though subsequent reflection has in some few particulars modified it, I still in substance hold, clinging to it with a grateful consciousness of ever-multiplying obligations. For in it the soul has free scope for its loftiest aspirations and its widest and deepest sympathies, strongest incentives to zeal, surest guidance for activity, solace in every distress, support under every difficulty, added cause for exultation in every success, renewed resolution in every defeat. Still, it is here offered, not as ascertained truth, but merely as a sample of those guesses at truth by which alone ordinary mortals need hope to promote the common cause of humanity in any of its higher bearings. Such guesses, however, when harmonising with all the conditions of their subject-matter, may fairly claim to be provisionally regarded as truths—nay, to be adopted as working hypotheses until superseded by new hypotheses capable of doing the same work better; in which supercession none ought to rejoice, nor, if sincere truth-seekers, will rejoice, more cordially than the propounders of the discredited doctrines. It is in this spirit and with these reservations that the articles of faith above recited are

submitted for consideration. How much soever they may fall short of the truth, they are, I feel, in the absence of any nearer approach to the truth, capable of rendering excellent service. However faintly and hazily the outlines of Deity be shown in them, the Deity whom they so imperfectly delineate is yet one to whom may justly be ascribed glory in the highest, one worthy of all trust, love, and adoration—of an adoration, too, inclusive not more of praise than prayer.

If the divine claim to the last-named tribute be disputed, it had better be by arguments other than those on which certain writers, with Mr. Galton for their leader and Professor Tyndall for their backer, have been recently expending much misapplied ingenuity. If the efficacy of prayer be, as the foremost of these declares it to be, 'a perfectly appropriate and legitimate subject of scientific enquiry,' the enquiry ought at least to be conducted according to scientific rules. On this point Mr. Galton himself lays much stress, intimating that whereas an unscientific reasoner may be expected to be 'guided by a confused recollection of crude experience, a scientific reasoner will scrutinise each separate experience before he admits it as evidence, and will compare all the cases he has selected on a methodical system.' Nevertheless, a brief examination of the experiences on which he and his principal associate rely, may suggest some doubt as to which of the two specified classes of reasoners it is that they themselves belong.

The facts or fancies cited by Mr. Galton in proof that praying is of no use are the following: 1. 'Sick people who pray or are prayed for do not on the average recover more rapidly than others.' 2. Although 'the public prayer

for the sovereign of every state, Protestant or Catholic, is and has been in the spirit of our own—"Grant her in health long to live"—sovereigns are literally the shortest-lived of all persons who have the advantage of affluence.' 3. The 'clergy are a far more prayerful class' than either lawyers or medical men, it being 'their profession to pray,' and 'their practice that of offering morning and evening family prayers in addition to their private devotions,' yet 'we do not find that the clergy are in any way more long-lived in consequence;' rather, there is room for believing their class to be the 'shortest-lived of the three.' Nay, even missionaries, eminently prayerful as they are themselves, and prayed for as they are with especial earnestness by others, 'are not supernaturally endowed with health,' and 'do not live longer than other people.' 4. 'The proportion of deaths at the time of birth is identical among the children of the praying and the non-praying classes.' 5. Though 'we pray in our Liturgy that "the nobility may be endowed with grace, wisdom, and understanding,"' our 'nobility are peculiarly subject to insanity;' as are likewise, indeed, 'very religious people of all denominations,' 'religious madness being very common indeed.' 6. So far from 'religious influences' appearing to have 'clustered in any remarkable degree round the youth of those who, whether by their talents or their social position, have left a mark upon English history,' 'remarkable devotional tendencies' have been conspicuous chiefly by their absence from 'the lives either of our Lord Chancellors or of the leaders of our great political parties;' while, out of our twenty-three extant dukes, four at least, if not five, are descended from mistresses of Charles II., not a single one of them, on the other hand, being

known to Mr. Galton to be of 'eminently prayerful qualities.' 7. In respect of those 'institutions, societies, commercial adventures, political meetings and combinations of all sorts' with which England so much abounds, and of which 'some are exclusively clerical, some lay, and others mixed,' Mr. Galton 'for his own part never heard a favourable opinion of the value of the preponderating clerical element in their business committees.' 'The procedure of Convocation which, like all exclusively clerical meetings, is opened with prayer, has not inspired the outer world with much respect.' Nay, 'it is a common week-day opinion of the world that praying people are not practical.' 8. In those numerous instances in which an enterprise is executed by the agency of the profane on behalf not of the profane themselves but of pious clients, 'the enterprises are not observed to prosper beyond the average.' Underwriters recognise no difference in the risks run by missionary ships and by ordinary traders, nor do life insurance companies, before they accept a life, introduce into their 'confidential enquiries into the antecedents of the applicant' any 'such question as "Does he habitually use family prayers and private devotions?"' Neither are the funds of devout shareholders and depositors at all safer than those of the profane when entrusted to the custody of untrustworthy directors, not even though the day's work of the undertaking commence, as that of the disastrous Royal British Bank used to do, with solemn prayer.[1]

Two or three minutes' attention to the grounds for, and the circumstances connected with, these statements, may assist us in appreciating Mr. Galton's notion of the

[1] 'Statistical Enquiries into the Efficacy of Prayer,' by Francis Galton, in Fornightly Review,' for August 1872.

difference between confusedly recollected experiences and experiences properly scrutinised and methodically selected.

For the statement first on the list, some negative evidence is considered to be afforded by the absence of any 'single instance in which papers read before Statistical Societies have recognised the agency of prayer either in disease or in anything else.' The chief authority for it, however, is the eloquent silence of medical men 'who, had prayers for the sick any notable effect, would be sure to have observed it,' seeing that they are 'always on the watch for such things.' But are they really, in every case of recovery from illness that comes under their notice, so particular and so successful in their enquiries whether any, and, if so, how much, prayer has been offered on behalf of the patient, as to be qualified to judge whether prayer has had anything to do with the cure? If not, although they may be showing their discretion by not speaking on the point, the 'eloquence of their silence' must not be too hastily interpreted. For doctors, of all men, should be the last to deny, as an abstract proposition, the efficacy of prayer in disease, knowing, as they do, how great is the curative influence of prayer when addressed to themselves. How, they may naturally ask, is it to be expected that sickness should be cured unless properly treated? and how can it be properly treated without a doctor? and how can a doctor be expected to attend unless he be asked? Upon which very natural queries others naturally follow. What would be the good of the doctor's coming unless he prescribed judiciously? and will he not more certainly prescribe judiciously if his judgment be guided by special interposition of divine grace? and if prayer to himself has plainly been one

condition of his coming, why may not prayer to God have been one condition of his judgment having been rightly guided? Will it be pretended that God's proceedings are abjectly submissive to inexorable laws from which those of the doctor are exempt, and that though the latter would certainly not have attended unless he had been asked, the grace of God, if given at all, must have been given equally whether asked for or not?

Statements 2 and 3 are founded on a memoir by Dr. Guy, purporting to show the 'Mean Age attained by males of various classes who had survived their 30th year from 1758 to 1843,' and whose deaths were not caused by violence or accident. According to this table, the average age of 97 members of royal houses was only 64·04, while that of 1,179 members of the English aristocracy was 67·31, and that of 1,632 gentlemen commoners 70·22; the proportion between the total number of royal, and that of noble and gentle, personages who died within the period specified, being apparently supposed to be as 97 to 2811, or as 1 to about 29. Except upon this supposition, Mr. Galton could not with any consistency have appealed to these figures, for he had previously announced his intention to be 'guided solely by broad averages and not to deal with isolated instances.' He seems, however, to forget this judicious rule when he comes to treat of the clergy, of whom 945 are compared in the table with 294 lawyers and 244 medical men. Here, he says, 'the clergy as a whole show a life value of 69·49 against 68·14 for lawyers, and 67·31 for medical men;' but then, he adds 'this difference is reversed' when the comparison is made between members of the three classes sufficiently distinguished to have had their lives recorded in Chalmers'

Biographical Dictionary or the Annual Register, the value of life among clergy, lawyers, and medical men then appearing as 66·42, 66·51 and 67·34 respectively. Whether, of the distinguished professional men concerned in this second comparison, the parsons were distinguished for their prayerfulness and the lawyers and doctors for their prayerlessness, Mr. Galton omits to state; and still more serious omissions on his part are those of not mentioning in what part of our Liturgy we are accustomed to pray that it may be granted to the Queen, not simply long to live, but also to live longer than other people; likewise in which of 'the numerous published collections of family prayers' that have undergone his scrutiny, is to be found a petition that parsons may live longer than lawyers or doctors; and, yet again, since an *average*, falling short of threescore years and ten by little more than three and a half, is so contemptuously rejected by him, what is the precise number of years that would be accepted by him as a liberal compliance with prayer for long life?

While deducing his argument from clergymen, Mr. Galton makes repeated and particular reference to the clerical *sub-genus*, missionaries, treating it as the more remarkable that these should not enjoy comparative immunity from disease, because, as he suggests, it would have been so easy for God to have made them a favoured class in respect of health: to wit, by the notable expedient of dissuading them from exposing themselves to any of the risks peculiarly attendant on missionary enterprise. 'Tropical fever, for example, is due to many subtle causes which are partly under man's control. A single hour's exposure to sun, or wet, or fatigue, or mental agitation will determine an attack.' What more simple than for God so to 'act

on the minds of the missionaries as to disincline them to take those courses which might result in mischance, such as the forced march, the wetting, the abstinence from food, or the night exposure?' What more simple, either, it may be added, than for God to save prayerful soldiers from ever being killed in battle by merely putting it into their minds to desert whenever they are ordered upon active service?

That 'the distribution of still-births is wholly unaffected by piety' Mr. Galton has satisfied himself by finding, 'on examination of a particular period, that the proportion of such births published in the 'Record' newspaper and in the 'Times' bore an identical relation to the total number of deaths.' He had previously, we must suppose, satisfied himself that advertisers in the 'Times' never say their prayers.

For the asserted commonness of religious madness Mr. Galton cites no evidence whatever, and, to judge from the sympathies and antipathies of which one of his avowed opinions may be supposed to be the subject and the object, speaks probably on this point solely from hearsay. Very possibly, however, his assurance of the extraordinary prevalence of insanity among British noblemen may be based on personal observation, as, of course, is that regarding the prayerlessness of his own ducal acquaintances. Birds of a feather, proverbially, flock together, and the same touch of irreligion may quite possibly suffice to make certain dukes and certain commoners kin.

Against the inefficiency, however notorious, of the clerical element in business committees, ought in fairness to be set the equally notorious efficiency of Jesuits in whatever they undertake, the signal statecraft displayed by the Wolseys, the Richelieus, and the Ximenes's of the days in

which cardinals and archbishops were permitted to take a leading part in executive politics, and the very respectable figure still presented by the lords spiritual, beside the lords temporal of the British House of Peers. As for 'the common week-day opinion that praying people are not practical,' those by whom it is entertained, of course, mentally except praying Quakers.

The fact that insurance offices do not attempt to distinguish between the prayerful and the prayerless, but, treating both classes as liable to the same risks, exact from both the same premiums, proves, I submit, nothing against the efficacy of prayer, not even that the managers of insurance offices do not believe in it. The statement that prayerful and prayerless, when placing their money in the same dishonest keeping, or engaging in the same bad speculations, suffer losses, bearing exactly the same proportion to their respective ventures, although most probably quite true, is also one which Mr. Galton has neglected to verify by the application to it of any test, scientific or other. Finally, if the disasters of the Royal British Bank are to be ascribed to its custom of opening business with prayer, not only ought the cackle of Convocation to be attributed to a similar cause, but also all the legislative botchery of the House of Commons, and the abolition of prayer before debate should be treated as the most urgently needed of those further parliamentary reforms with which the fertile brains of certain eminent statesmen are suspected to be teeming.

Thus much by way of intimation that there would be no excessive temerity in encountering Mr. Galton even on the ground of his own choosing, were that ground really worth contending for. But baseless and exorbitant as all Mr.

Galton's postulates are, there is not one of them to which he might not be made heartily welcome, for any effect its surrender could have upon the real issue, the true nature whereof both Mr. Galton and his principal coadjutor have, with marvellous sleight of eye, contrived completely to overlook. Such Pharisees in science, such sticklers for rigorously scientific method, might have been expected to begin by authenticating the materials they proposed to operate upon, and, when professing to experiment upon pure metal, at least to see that it was not mere dross they were casting into the crucible. Plainly, however, they despise any such nice distinctions. The most earnest prayer and the emptiest ceremonial prate are both alike to them. What sort of a process they imagine prayer to be may be at once perceived from the sort of trials to which they desire to subject it.

'After much thought and examination,' the coadjutor aforesaid—a bashful Teucer, over whom Professor Tyndall has, like a second Ajax Telamon, extended, with chivalrous haste, the shelter of his shield—does 'not hesitate to propose that one single ward or hospital under the care of first-rate physicians or surgeons, containing a number of patients afflicted with those diseases which have been best studied, and of which the mortality rates are best known, should be, during a period of not less than three to five years, made the object of special prayer by the whole body of the faithful, and that, at the end of that time, the mortality rates should be compared with the past rates, and also with those of other leading hospitals similarly well managed during the same period.'[1] In suggesting this experiment, termed

[1] 'Contemporary Review,' July 1872. 'The Prayer for the Sick. Hints towards a serious attempt to estimate its value.' Communicated by Prof. Tyndall.

by himself 'exhaustive and complete,' its propounder imagines himself to be offering to the faithful 'an occasion of demonstrating to the faithless an imperishable record of the real power of prayer.' If, however, he were himself petitioning for the reprieve of a condemned criminal, he would scarcely expect to succeed, even with so tender-hearted a minister as Mr. Bruce, if he were to let out in the course of his supplications, that he did not care whether he succeeded or not, and was asking for the reprieve solely for the purpose of ascertaining whether the head of the Home Office is really invested with the prerogative of mercy. Yet no suspicion crosses his mind that the Searcher of Hearts may possibly be displeased with prayers addressed to Him by the lips of those who were, all the while, saying in their hearts that they did not want their prayers to be granted, but only wanted to satisfy their curiosity to know whether they would be granted or not. Equally remarkable is the trustfulness of Mr. Galton, in opining that 'it would be perfectly practicable to select out of the patients at different hospitals under treatment for fractures, or amputations, or other common maladies, whose course is so well understood as to admit of accurate tables being constructed for their duration and result, two considerable groups, the one consisting of markedly religious and piously befriended individuals, the other of those who were remarkably cold-hearted and neglected; and that, then, an honest comparison of their respective periods of treatment, and the result, would manifest a distinct proof of the efficacy of prayer, if it existed to even a minute fraction of the amount that religious teachers exhort us to believe.' Evidently, he imagines that it would be sufficient for the hospital authorities to advertise—not of course, in the 'Times,' but in the 'Record'—and that,

thereupon, whoever, having entered into his closet and shut the door, had, on behalf of any of the patients experimented upon, prayed to the Father who seeth in secret, would at once come forth and proclaim openly how he had been engaged. Not by 'arguments' of no greater 'cogency' than that of any based upon results thus obtainable, need either of the two experimentalists expect to persuade praying people that prayer is, 'in the natural course of events,' doomed to become 'obsolete, just as the Waters of Jealousy and the Urim and Thummin of the Mosaic Law did in the times of the later Jewish Kings.' Not quite so easily will they cause it to be 'abandoned to the domain of recognised superstition,' just as belief in witches and in the Sovereign's touch as a cure for scrofula, and 'many other items of ancient faith have already successively been.' Both of them have, it seems, yet to learn that the only prayer which is believed by people of some little enlightenment to be of any avail, is the 'fervent, effectual prayer of a righteous man,' prayer that cometh from 'a pure heart fervently,' prayer that is made 'with the spirit and with the understanding also.' Prayer of this sort is not to be discredited by any abundance of statistical testimony to the futility of cold lip-worship, or by any number of fresh examples of the generally recognised fact that the children of this world are wiser in their generation than the children of light. The recovery from the very jaws of death of King Hezekiah, of Louis XV. of France, while as yet undetected and *bien-aimé*, and of the present Prince of Wales, may, none the less probably, have been in part due to the prayers offered up for the first by himself, for the second, according to President Hénault and Mr. Carlyle, by all Paris, and, for the third, by the whole British empire,

because *lessons* appointed to be regularly said or *sung* in churches for the prolongation of the Sovereign's life, and said and sung by the congregations to whom they are set, with equal regularity, whether the Sovereign be well or ill, detested or beloved, are to all appearance disregarded. Modern believers in prayer are well aware that, although they ask, they may not receive if they ask amiss, and would accept this as fully adequate explanation of the disappointment of anyone, who had the face to pray that he might grow as rich as the late Mr. Brassey, or be created a duke, or appointed Lord Chancellor, or supplant Mr. Gladstone in the premiership, or Mr. D'Israeli in the leadership of Her Majesty's Opposition. Moreover, the spirit, duly seasoned with understanding, in which alone true prayer can be made, is one, not of presumptuous dictation to a Heavenly Father, but of sincere and grateful recognition that 'He knoweth better than ourselves what is for our good.' Far from praying for selfish aggrandisement, we cannot, if we pray aright, pray that, whether from ourselves or others, the cup of affliction may pass away, without adding, 'Nevertheless, not as I will, but as Thou wilt.' The only gifts that can with propriety be prayed for unconditionally are gifts spiritual—cleansing of the thoughts of the heart, strength to resist temptation, strength to endure trials, strength to perform our appointed work; and whoever may think fit to make these the subjects of statistical inquiry, may depend upon being assured by everyone experimentally qualified to reply, that they are never asked for faithfully without being obtained effectually; together with large measure, if not of the cheerfulness, at least of the patience, of hope.

EPILOGUE.

If with rash step, or with presumptuous word
I have transgressed, or with unshrinking eye
Have sought to pierce the awful mystery
That veils thy Godhead, yet forgive me, Lord!
Thou knowest that I sought not to draw nigh
Thy Throne, save that my witness might record
More truly of Thine attributes, whereby
On Earth, e'en as in Heaven, might be adored
The fulness of Thy glory. Not in wrath
His trespass wilt Thou judge, whom, licence, bred
Of zeal, though blinded, yet devout, betrays,
Nor scorn the unconscious wanderer from Thy path,
Nor leave me hopeless, if indeed misled
By thirst for truth, more deep in error's maze.

LONDON: PRINTED BY
SPOTTISWOODE AND CO., NEW-STREET SQUARE
AND PARLIAMENT STREET

Digitized with financial assistance from the
Government of Maharashtra
on 18 July, 2018